



# College AND UNIVERSITY Business

**APRIL 1955: Church Support for Church College ★ Replacement Insurance ★ A to Z in a Building Program ★ Equipping Residence Halls ★ Campus Beautiful ★ Cost Accounting for Food Operations**



One of the Reading Rooms, Reuben McMillan Free Library, Youngstown, Ohio.

AGENT: Graybar Electric Company.



Central Section, Reuben McMillan Free Library, Youngstown, Ohio.

## MODERNIZING A PUBLIC LIBRARY WITH WAKEFIELD LIGHTING UNITS by WILLIAM H. AXELSON, *electrical contractor*

That good lighting should play a major role in the modernization of a 44-year old public library building is a tribute to the skill and imagination of the electrical contractor who planned and sold the various installations.

The biggest problem was in the central section where the beamed ceiling is 26 feet high and had originally contained stained glass skylights. To quote Youngstown librarian James C. Foutts and Assistant to the Librarian A. J. Biggins: "Some type of overall illuminated ceiling seemed to be the only answer but costs were prohibitive. Suddenly the problem was solved

economically and very satisfactorily with the production, by the Wakefield Brass Company, of Omega, an attractive surface-mounted fluorescent fixture with a Rigid-Arch plastic diffuser. After this installation the illumination level in this room stood at 55 footcandles."

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For a new catalog on the Wakefield Omega, as well as other Wakefield lighting units, write to The F. W. Wakefield Brass Company, Vermilion, Ohio. In Canada: Wakefield Lighting Limited, London, Ontario.

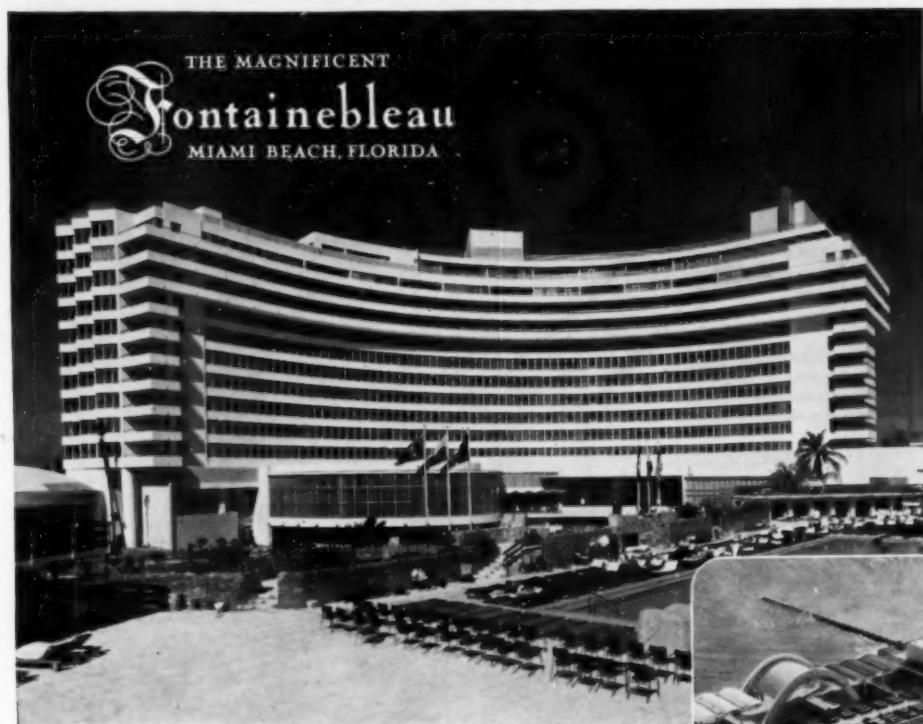
Wakefield Congratulates WILLIAM H. AXELSON

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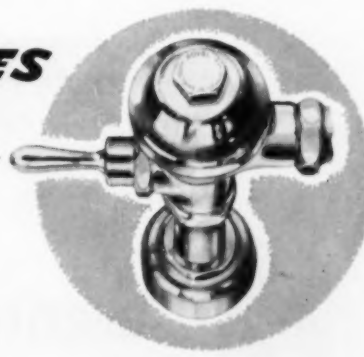
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Published monthly by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc., 919 North Michigan, Chicago 11, Ill., U.S.A. Raymond P. Sloan, president; Stanley R. Clague, vice president and secretary; Everett W. Jones, vice president; Peter Ball, vice president; John P. McDermott, treasurer. Copyright 1955, by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc. Single copies, 50 cents. Acceptance under Section 34.64, P.L.&R., authorized. Published on the tenth of the month of the date of issue. Change of address should be sent 30 days in advance of publication date.

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## Among the Authors



C. M. F. Peterson

CARL M. F. PETERSON, superintendent of buildings and power at Massachusetts Institute of Technology, discusses on page 23 important factors to be considered in the construction of new buildings. His check list of questions to be answered prior to completion of architectural drawings should be helpful to college administrators in reducing expensive changes in design after the building is actually under construction. Mr. Peterson has been a member of the M.I.T. staff for the last 23 years and has been intimately involved with M.I.T.'s extensive building program during that period. In fact, he holds two degrees from that institution and for 11 years taught there, attaining the rank of assistant professor. He has been a frequent contributor to this magazine. Within recent years he has written several articles for publication in the engineering field, with particular emphasis on lighting of classrooms and laboratories. When not tied up with M.I.T. problems, he heads for the nearest lake or wilderness to indulge in his two major hobbies of hunting and fishing. He is acknowledged by his associates as being an expert in both.



Kathryn Bruce

KATHRYN BRUCE, educational director of the National Restaurant Association, on page 46 stresses the importance of an adequate employee training program, particularly in food service establishments. Though speaking out of experience in the commercial restaurant field, Miss Bruce has suggestions regarding good training practice that merit study by college food service directors. Prior to accepting her present position, she served as a restaurant manager for Hillman's Inc., in Chicago. There she supervised the main kitchen, dining room, and snack bar staffs. Earlier she had held the position of assistant manager for the Greyhound Post Houses, Inc., where she obtained experience in the employee training school, in restaurant management, and on the field utility staff. In her present work with the National Restaurant Association, she spends a great deal of time in travel, assisting state and local restaurant associations in performing more effective work in the fields of employee training, cost control, menu preparation, and merchandising. Miss Bruce is a graduate in home economics of Southeast Missouri State College at Cape Girardeau and holds a Smith-Hughes certificate from the University of Missouri.



Harvey Sherer

HARVEY SHERER, assistant business manager of Oregon State College, and a frequent contributor to the columns of this magazine, gets a pet peeve off his chest—current practice in business correspondence (p. 47). Harvey usually can be counted on to stir up a controversy on matters of college administration, many of which developed out of his concern for administrative procedures as a member of the committee that prepared the manual on college and university business administration, Volume I, published by the American Council on Education. Prior to his work with the committee, he had been associated with the business staff of Upper Iowa University and also with a private accounting firm.

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**MERIT AWARD**  
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**GENERAL VIEW OF MAIN KITCHEN** — showing food conveyors lined up opposite cook's tables. When loaded, conveyors are wheeled to elevators and taken to individual floor pantries. Stainless steel cook's table typifies sanitary construction of all equipment, featuring round corners, rolled edges, seamless crevice-free surfaces. Note built-in bain marie.



**CAFETERIA**—close up of stainless steel serving counter. Round-corner bottom, seamless top, welded tray slides, elimination of horizontal trim—all promote cleanliness.



**FUNCTIONAL DESIGN AIDS SANITATION** in main dish pantry. Stainless steel clean dish table with built-in round-corner sink. Wall-mounting eliminates leg obstructions, facilitates cleaning. Welded tubular undershelf is suspended from dish table, leaving floor clear.

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The installation serves approximately 55,000 meals every month to patients and employees. Service to patients is handled through a well-planned decentralized system. Pre-heated food conveyors are loaded with bulk food in the main kitchen and transported to individual floor pantries. There, trays are set up and distributed to patients.

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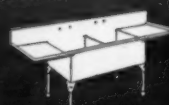
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# Questions and Answers

## Food Service

**Question:** What is the trend in food service departments—centralized food production and service or centralized food production and decentralized service? In other words, do colleges prefer to have a commissary and transport food to small dining rooms, coffee bars and cafeteria, or do they prefer a central food service building where they produce their food and serve it from cafeterias, dining rooms, and coffee bars in the same building?—R.B., Ont.

**ANSWER NO. 1:** In my opinion, the trend in food service departments in American colleges is toward centralized food production and service because the ideal food layout exists where the areas of service are nearest those of preparation.

However, in many colleges where dining hall units are widely dispersed and each unit is comparatively small, central commissaries are being built. There foods are received, stored, produced and then transported to the dining halls where they are served. One of the finest examples of this operation is at Mount Holyoke College, South Hadley, Mass. In this operation, under the direction of Andrew Vitali, all food is produced in a central commissary and sent to the various dining halls for serving. I would recommend for your reading an article that appeared in the January issue of *Architectural Record* entitled "Planning Food Service Facilities."—THEODORE W. MINAH, director, Duke University dining halls.

**ANSWER NO. 2:** When speaking of trends in food service departments, I must assume that the question is directed toward new plans, layouts and developments, as major changes are usually not made in existing facilities. Circumstances and conditions at each institution will alter the situation and may dictate the course to be taken.

It is my conviction, however, that the current trend is toward centralized food production and service units within the same building. This plan offers greater over-all efficiency and results in a lower cost per meal served.

The best example of this trend is the single food producing unit serving four dining rooms in Brody Hall at Michigan State College. It will serve six residence halls (three complete, three proposed) housing 3000 students.—C. T. JOHNSON, director of university services, University of Minnesota.

## Insurance Coverage

**Question:** If a faculty man driving his own car on school business injures an occupant of his car, or one in another car, or pedestrians, and the damages assessed against him exceed his own coverage, is there any automatic or contingent coverage the school can carry that would supplement the individual's coverage? Or would the school be drawn into the suit as a defendant or co-defendant?—H.M.B., Pa.

**ANSWER:** It is, of course, possible for an institution to obtain insurance coverage for the automobiles of employees when used for institutional purposes. Such coverage should be based upon an analysis of the amount of such usage. In making settlement in the event of an accident, the insurance company will not normally limit its payments to claims involving litigation or threat of litigation. However, the insurance company, under such a policy, could legitimately pay only claims based upon the actual use of the employees' automobile for institutional purposes.—T. E. BLACKWELL, vice chancellor, Washington University.

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill. Questions will be forwarded to leaders in appropriate college and university fields for authoritative replies. Answers will be published in forthcoming issues. No answers will be handled through correspondence.

## Tenure Status

**Question:** Should a business manager have the privilege of faculty and tenure status?—R.S., Ill.

**ANSWER:** The ninth publication of Series III of the Financial Advisory Service of the American Council on Education entitled "Principles of College and University Practice" stated that the chief business officer of a college or university "should have tenure and other rights and privileges similar to those of other major institutional officers." The publication does not state that such tenure, rights and privileges should necessarily be the same as those provided for faculty members.

Responsibility as a major officer of the institution in connection with business administration is of great importance. It would appear unfortunate if it were necessary to provide academic rank or tenure for major officers of the administration in order to make them "acceptable" on a college or university campus. Certain phases of institutional operation will involve only the faculty, other phases will involve only the business officer, and still other phases will involve both faculty and the business officer. In the first instance, final determination should be made by the faculty; in the second instance, final determination, by the business officer; in the third instance, operating problems should be solved through the cooperative effort of the faculty and the business officer. If this procedure is followed, the business officer need have only the tenure, rights and privileges assigned to other major administrative officers.

Academic rank and tenure for instructors and professors have been established for specific purposes. The use of these in connection with administrative officers who do not have direct teaching responsibility serves little purpose and actually may weaken the title and rank of administrative officers.—RAYMOND KETTLER, controller, board of regents, University of California.





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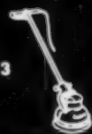


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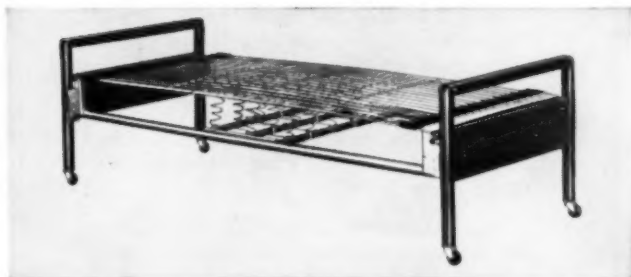
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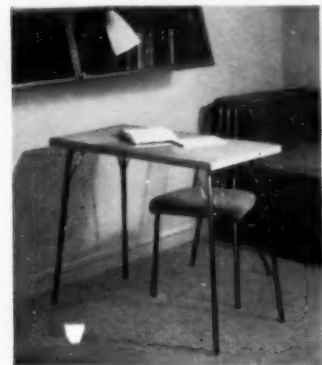


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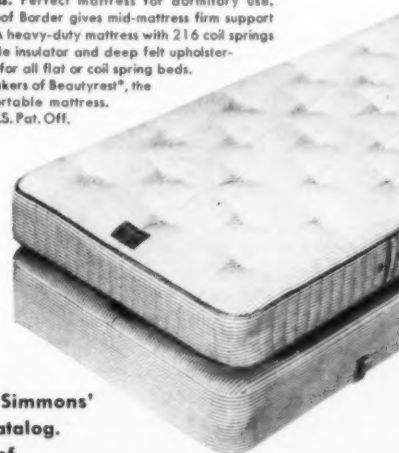
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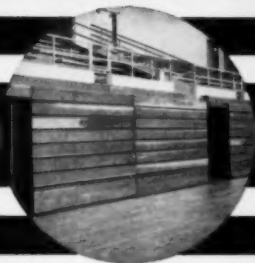
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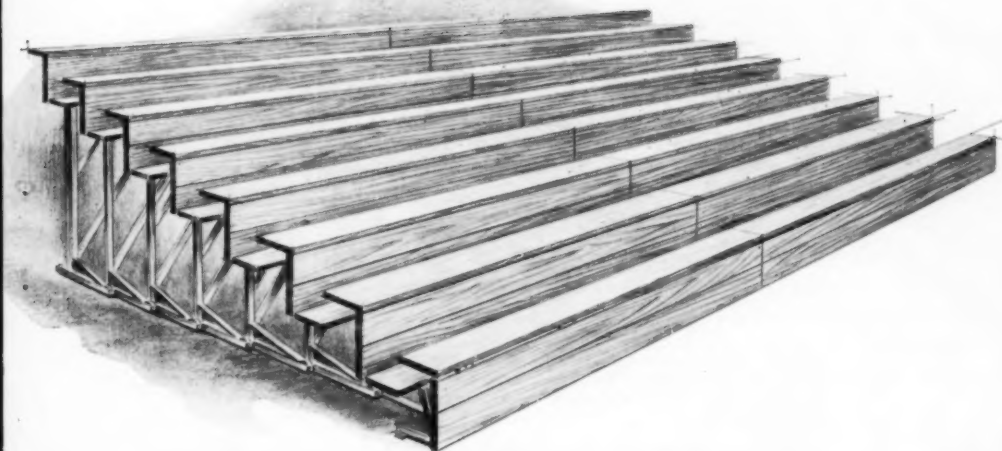
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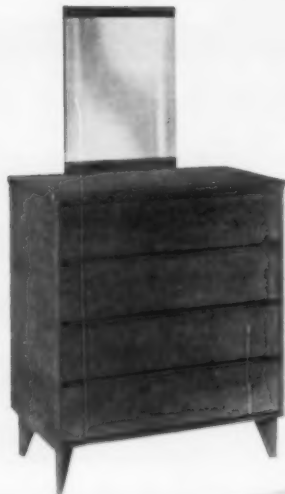
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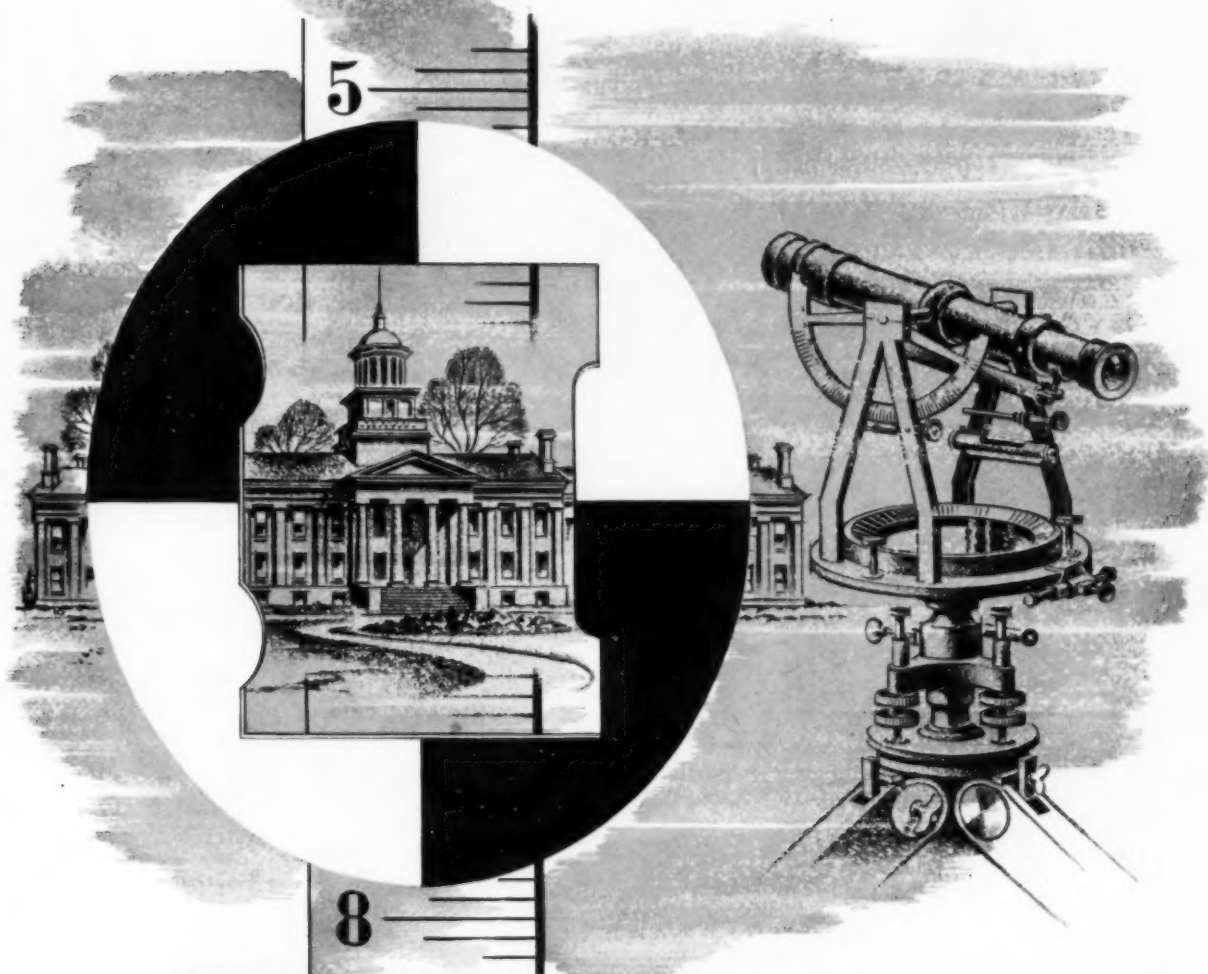
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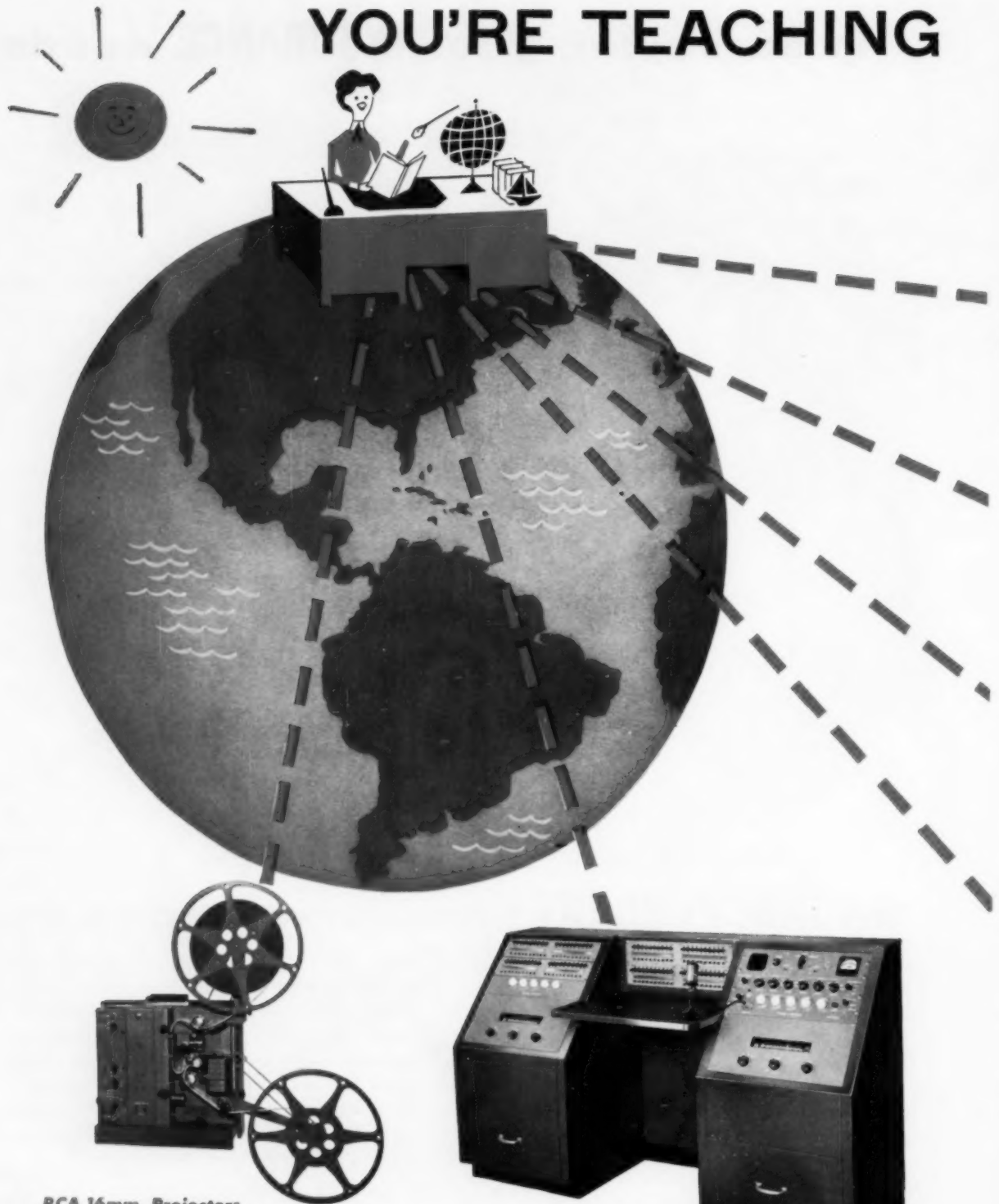
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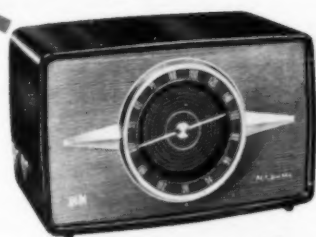
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## *There's a New Horizon for the Teacher*

**SAMUEL B. GOULD**

*President, Antioch College, Yellow Springs, Ohio*



THESE ARE TIMES IN WHICH THE LIBERAL ARTS appear to be coming into their own. Educators are speaking of this new trend almost tremulously. They are viewing the interest now shown by business and industrial corporations in supporting liberal arts institutions with some of the fervor that the Children of Israel must have felt as the first manna dropped from heaven. They are pleased to discover that the already illustrious cultural function of the liberal arts college is being scrutinized as a possible key to the solution of the increasingly complicated problems of human relations which plague us on every side. What once was considered theoretical and lacking in direct application is now being reconsidered as the only sure way to creating industrial, social and political leaders who will have broad vision to complement technical skill.

All the attention, however, seems at this point to be given to the product of the liberal arts approach; little attention is being given to the teacher, who is the major human element involved in the process of making the student a "whole man." Certainly it must be evident that he, too, must be the product of a training that is balanced. The educational system must work in reverse, so to speak, in order to ensure that the teacher has had sufficient exposure to practical life, just as the student has had good acquaintance with the liberal arts. The background of the teacher in the ideas of great books and their philosophical concepts can open whole vistas of possibility to the mind, but day-to-day relationship with the living world outside the campus can bring these vistas into focus and create practical understandings in human relations.

Recognizing, as we do, that we have deep concern over the adaptation of knowledge to the needs of modern living, whether vocational or avocational, we should consider the inservice training of the teacher in this regard as carefully as we explore the requirements of the student. The teacher always has been encouraged to study further in his field, to write, to do research, to make himself more and more the master of his subject. Sabbatical years and leaves

of absence for research aid this process and always should be the privilege of the teacher. But how frequently has he been similarly encouraged to leave the campus for a space of time in order to make himself a part of the practical society for which he is training his students, to undertake the same kinds of vocational responsibilities that his students ultimately face, and to acquire real and intensely personal relationships with people in other walks of life?

This new kind of inservice training must be undertaken systematically and must be an active responsibility of the college. It must make it possible for the teacher to leave the campus once every four or five years to spend a year in business, in industry, in a service agency—all with the guidance, assistance and financial support of the college.

Many important by-products will accrue from the entrance of the faculty into a field-work arrangement. Classroom work will be charged with a new vitality. Increased mutual respect will be engendered between businessman and educator. The former will discover, as he did temporarily during World War II, that the college professor is a capable and creative employee. The educator will discover that the world of business is exciting and challenging to him. The old barriers separating the academic world from reality will be lowered. The academician suddenly will awaken to the satisfactions of using assets hitherto untapped and of performing creditably in a new environment. All these personal reactions ultimately will pour themselves into a huge reservoir of good will and understanding that will be of great benefit to America.

Antioch College will send some of its faculty into the field next fall. It will support this new inservice training, believing firmly that this is another means of bridging the gap between education and the rest of the world. It will encourage its faculty to participate, hoping that by the creation of a new horizon toward which the teacher may look and strive, greater strength will be added to the academic program of the liberal arts college through greater effectiveness of instruction.



# Looking Forward

## Who Should Go to College?

IN AN ATTEMPT TO ANSWER THIS QUESTION THE ACADEMIC world is splitting into two camps, each sublimely confident that it is preaching the true academic gospel. One campaigns for education for all; the other group urges the education of those of superior intellectual capacity and potential leadership—the creation of an intellectual aristocracy of Athenian style, if you please.

Perhaps the real answer to "Who should go to college?" is not to be found in either extreme but somewhere midway. The argument might well be shifted from "Who should go to college?" to how they should be educated when they get there. Make no mistake about it—they're coming and it's getting late for those administrators who haven't yet figured how they are to be educated. The wave will engulf some institutions while they're still debating "who should go to college" and will sweep away in the tide all academic standards.

Some college presidents are still equating size with quality, as if there were a special virtue in being a small college. It may mean that such an institution is poorly financed, ineptly led, and ill equipped to provide an educational opportunity of high standard. The large institution in the next county may provide a markedly superior educational opportunity, not just superior building and equipment but perhaps a much greater stimulation to intellectual performance. It does not necessarily follow that an increase in enrollment will result in a "deteriorating educational performance," though that risk does exist, as was recently pointed out by Harold Dodds, president of Princeton.

College executives are facing enrollment pressures that for more than two decades give no hint of slackening. Less wringing of hands and more concern for getting a high quality job done will provide solutions for the problem. The impending increase in enrollment is a challenging opportunity, not a calamity.

## Coming of Age

WHEN THE BUSINESS OFFICERS OF COLLEGES AND universities meet at Estes Park, Colo., in June for the first National Assembly of the National Federation of College and University Business Officers Associations they are due for a surprise. They'll wonder why they ever thought their fellow business officers from other

regional associations to be such scheming or conniving fellows. This first national meeting of college business officers will uncover a great community of interest and perhaps lay at rest the idea that provincial differences are of any consequence.

The serious issues facing college business officers in higher education are slated for detailed attention under competent leadership. The pressure from increased enrollments emphasizes the critical need for more effective space utilization; a report on the 60 college cost analysis study should help give direction in the midst of current confusion; unit cost study and discussion will appear on the agenda to help improve technics. Financing future construction and improving endowment administrative procedures will be problems receiving attention by assembly delegates.

This historic meeting of college business officers gives promise of being a significant step forward toward professional competence. And Estes Park, Colo., what a delightful place to make history!

## Know What You Want

PITY THE POOR ARCHITECT. IN MANY CASES HE'S called to design a building, but trustees or building committee give little help in telling him what is wanted. They suggest that he visit half a dozen institutions where comparable structures are in use, or they ask a magazine editor to provide them with sample floor plans. Out of this procedure they hope to get a building—which they do—but it isn't what they want after they get it.

Advance planning by a representative committee of users of the building will help avoid unnecessary mistakes. The cross-fertilization of ideas that takes place through following such a procedure results in specifications based on the precise uses to which the building will be put. This substantially reduces the architect's work and time during the planning stage and reduces the likelihood of misunderstanding and errors. If the architect knows what the client wants, and if the client knows what he himself wants, the battle is half won before the draftsman draws a line.

It's so obvious, it seems too simple. But there are buildings on college campuses across the length and breadth of America that bear testimony to the lack of clients who knew what they wanted. Your own campus may have such a building.



NO FINANCIAL ASSISTANCE FROM church groups can be expected by a college unless the values between campus and constituency are readily discernible.

Dr. Joseph Hopkins of Westminster College, in the *Bulletin* of the Association of American Colleges for May 1951, declares:

"Apparently support from church sources is *not* contingent upon either the extent of the denomination's resources or the extent of its control over its colleges. . . . It may be concluded that in most instances the college with a full program of religious offering, presumably in harmony with denominational doctrine and mode of expression, is rewarded by a substantial return of students and dollars from the church. And, at least in some degree, both student support and financial support are influenced by the extent and the effectiveness of the college's church cultivation program."

But, Dr. Hopkins adds: "There is no guarantee that the college which sets up strong religious and church relations programs will immediately prosper. . . . There seems to be an intangible something which motivates support. Some denominations have it; others don't. Perhaps it is Christian commitment and stewardship."

To a degree, this is true. Any discussion of tested methods of solicitation must recognize the extent of Christian commitment and stewardship. But this is not the entire story. There is an old sales maxim that "anything can be sold if the story is right." Therein lies the key to the problem of methodology. It is a fatal mistake to emphasize only the dollars needed. Another sales maxim might be noted: "You must give in order to receive." This also is fundamental Christian doctrine. What is the college giving to its church?

Accordingly, any approach to methods would seem to involve three steps, and, while these three steps may be somewhat oversimplified in their application, they involve (1) conversance; (2) conviction, and (3) contribution. Let's take a brief look at these three approaches.

No one will give to a cause regardless of its worthiness if he is not conversant with its purposes and ideals, and the extent to which these are

From a panel discussion before American College Public Relations Association, 1954.

## Tested methods of organizing

# Church Support for the Church Related College

HERBERT W. KNOPP

Coordinator of University Relations  
Valparaiso University, Valparaiso, Ind.

being achieved. A church college, it would seem, should, as frequently as possible, keep the entire constituency informed of what is taking place on the campus. Adopt the principle that no constituent can ever know too much or hear too often about the institution. The normal media of news releases to the public press are inadequate. It is far better to develop a house organ which, while conforming to good editorial procedures, slants copy to the end desired. In other words, let the college bulletin be a well edited and effectively subtle propaganda medium going into a maximum number of homes of the constituency.

If this can be accomplished, the second step is only a matter of time, for such an approach will beget the conviction desired. It is tragic to note the number of schools that "make their pitch" on the basis of educational excellence first, with religious emphasis as an afterthought. No church related school with its limited budget can compete with the virtually unlimited resources of tax supported institutions. But every church related school can provide a sound, adequate and altogether satisfactory academic training plus a mighty *plus* program that emphasizes the ultimate destiny of man in his relationship to his Creator. Here the tax supported schools can offer no real competition. Nor should it be forgotten that the church school has a legitimate reason for existence in this area only.

This brings us, then, to tested methods. The organizational setup should

follow the structure of the church. There should be a dual approach—to clergy and to laity. While the clergymen seldom have the means to contribute in large amounts, yet they can be of aid to the circuit chairman in their own parish. These chairmen should receive regular communications from the campus and should serve as liaison men for the rest of the clergy in their area. They should be considered an integral and official part of the campus family. If at all possible, these men should be brought to the campus annually for a two-day meeting to discuss with the administration ways and means of improving the measure of support for the school. It is doubtful if these ministers will be of much value in personal solicitation of gifts, but they can be of inestimable value in counseling their parishioners in such matters as trusts, annuities and bequests. They also can serve as excellent "bird dogs" in pointing to potential donors.

With respect to the laity, we at Valparaiso University like the idea of an advisory council whose membership is made up of one outstanding, aggressive layman from each congregation or parish. He should be nominated by the school for the consideration of the local pastor or minister. In no instance should this man be arbitrarily foisted upon the pastor. If the pastor has no objection to the appointment, the president of the college then notifies the layman of his appointment and requests his acceptance. His duties, outlined at the time of appointment, include all areas of repre-

sentation, students as well as finances. This man should receive special news bulletins from the campus and should be kept fully aware of the areas of service the school renders the church and the needs of the school if it is to expand such services. The selection of these laymen will be made from those who have previously contributed to the college, from alumni, or from fathers of present or former students.

The auxiliary agencies of the church, such as ladies' societies, men's clubs, young people's societies, even Sunday school classes, should not be ignored. These groups will be difficult to organize as units but usually will respond to an appeal that coincides with the aims and purposes of the group. These appeals can be transmitted by the campus directly or through the advisory council member. Some colleges have successfully es-

tablished a special organization of their own, often designated as a guild, with local chapters transcending congregational or parish lines. Such organizations can pose problems. Extreme care in the supervision or guidance of such a group is essential.

In the final analysis, the organizational setup must be adapted to the college, but no organizational blueprint can operate effectively without emphasis upon a thorough knowledge of the institution and without the development of the conviction that the school serves a unique and vitally necessary function in the over-all life of the church body. The financial difficulties of many church related schools stem from a lack of such emphases, and I would venture the opinion that there is small hope for financial support from the constituency so long as this situation prevails.

committee of the board empowered to act in the interim. At the midyear meeting the budget for the next year is usually studied in its tentative form, revisions of the current budget are authorized, and the work of the year is studied. At the commencement meeting, degrees are formally passed upon, next year's budget is approved, and necessary legislation considered.

#### **6. How many committees are required for the proper functioning of the board?**

The most commonly found trustee committees include: executive committee, investment committee, buildings and grounds committee, faculty committee. Other types of committees found on boards include: budget, audit, financial promotion, student affairs, athletics, nominations.

#### **7. Are there any dangers in the committee plan of board control?**

At times too much responsibility may be given to committees, so that the action by the total board is less effective than it should be. All trustees should be keenly aware of *all* major problems facing the college.

#### **8. How much time is necessary for a successful board meeting?**

The answer is perhaps obvious—time enough for the board to act thoughtfully and responsibly. Some progressive boards have found the two-day meeting a minimum essential, devoting the first day to committee meetings and to the gaining of a complete grasp of the issues to be considered.

#### **9. How inclusive should the by-laws of the board be?**

The by-laws should cover the major points of policy decided by the board which affect the government of the institution. If policy decisions are recorded only in the minutes of the board, they may be lost and are unlikely to become widely known. The by-laws should deal principally with the organization of the board, its time and place of meeting, the internal organization of the college, the fiscal management of the college, the faculty, and procedures for amending the by-laws. By-laws should be kept up to date through mimeographing or printing.

#### **10. Should alumni interests be directly represented on the board?**

It is increasingly felt that the vital concern of the alumni of a college should have direct representation on the board. The extent of this representation varies among colleges.

## **The proper business of the**

# **Board of Trustees**

#### **1. Should the president of the college be a member of the board of trustees?**

There is considerable difference of opinion on this question. A study of 32 church related colleges in 1930-32 indicated that in two-thirds of the institutions the president was a member of the board. Since the function of the board must include that of supervising the work of college executive officers, it hardly seems reasonable that a president (or a subordinate) should hold membership on the agency that is judging his services. The president should, of course, have a seat at board meetings, and should be allowed to speak on all matters.

#### **2. What is the major function of the board of trustees?**

The board of trustees is a legislative body with primary responsibility for policy determination. It acts on the election of faculty members, the choosing of college executive officers, the investment of endowment funds, the adoption of the budget, and the erec-

tion of new buildings. The board must judge the work of its executive officers, and bear legal responsibility for the institution as a corporate entity.

#### **3. What is the authority of an individual member of the board?**

Power is lodged in the trustees as a group. Individual trustees have no legal right to take any action affecting the college unless specifically commissioned by the board for this purpose.

#### **4. Is the board an administrative body?**

The board is expected to delegate to its chosen executive the work of administering the institution. The board is responsible in the determination of policies, but the application of these policies is a matter for executive action. An apparent exception to the rule that the board should exercise no executive function is found at times in the work of the investment committee of the board.

#### **5. How often should regular meetings of the board be held?**

The general practice at the present time appears to be two annual meetings of the board, with an executive

Reprinted in its entirety from *Trustee*, a publication of the division of educational institutions, General Board of Education, the Methodist Church.

IT WAS A QUIET SATURDAY NIGHT, Dec. 12, 1953, on the campus of Beloit College in Wisconsin. Snow covered the ground, many students had departed for the week end, lights glowed through festoons of Christmas decorations in dormitories and halls.

Suddenly the crisp night air was punctuated by cries of "Fire!" and the shriek of sirens. Billows of smoke were silhouetted in the dark sky as flames licked away at the 60 year old Edward Dwight Eaton chapel of the college. The fire raged out of control for more than three hours, destroying most of the chapel roof, gutting the interior, ruining a large pipe organ, and destroying most of the contents of the basement, including thousands of books and bound papers, records, other stored material, and three faculty offices.

Arson was suspected, and later a college student confessed the crime.

In sentimental value and in many physical properties, the chapel was irreplaceable. It was one of the most picturesque spots on the campus. Of Byzantine style architecture, it also was considered one of the finest examples of ashlar (square stoned) masonry in the country. It housed many art treasures.

Under ordinary circumstances, it would have taken considerable time and fund raising effort before Beloit College would have at least a reasonable facsimile of its former chapel. Yet one year from the date of the devastating fire, students and alumni dedicated a new and more spacious chapel whose construction was made possible without recourse to special funds or endowments.

Actually, Beloit College has a new chapel—one almost stone for stone for its predecessor—because of one of the most unusual insurance sales on record.

Several years ago a member of the board of trustees at Beloit became interested in a new type of insurance called "replacement" or "depreciation" insurance and, heading the insurance committee of the board of trustees, he quickly brought the new type of coverage to the attention of the board. His presentation convinced the trustees that Beloit couldn't afford to be without replacement insurance.

Destruction of the chapel was determined as 73 per cent. With replacement insurance in effect, the college collected a total of \$186,000. Had the coverage been on an actual

cash value basis with an 80 per cent co-insurance clause, which is customary, only \$113,000 worth of insurance could have been collected. This would have meant a net out-of-pocket loss of \$73,000, a considerable sum for any institution to dig up on short notice.

Here is an example of the way ordinary and replacement insurance would work in the case of "X" building:

Actual cash value, or ordinary, insurance is arrived at by using the formula: the cost of replacing the building or equipment new minus ex-

cludable items (such as foundations, drains and wiring, usually below ground and not subject to fire damage) minus depreciation. As an example:

Value of "X" building at present	
replacement costs .....	\$110,000
Excludable items .....	—10,000
	<hr/> \$100,000
Depreciation, 40 per cent on "X" building because of age and condition of property .....	—40,000
Actual cash value .....	<hr/> \$ 60,000

Since most policies are written at 80 to 90 per cent of actual cash value, the normal insurance policy probably



Students watch blaze in Beloit chapel.

**Beloit advances its own argument for**

## ***Replacement Insurance***

**ELIZABETH F. GOYAK**

Chicago





Beloit College's new Edward Dwight Eaton Chapel was dedicated just one year from the date of its destruction by fire.

would pay only about \$50,000 for the destruction of "X" building. Yet the owner would be faced with a \$100,000 cost to replace!

A replacement endorsement on a cash value policy simply means that in addition to \$50,000 the owner of "X" building might ordinarily collect, he receives the \$50,000 needed actually to replace his building or equipment.

Because replacement insurance offers a moral hazard, there is one important stipulation in each endorsement. Unlike ordinary insurance, the money must be used for actual replacement of the facility and not for other purposes. Also, the building must be replaced within a certain period of time, usually two years. Institutions such as colleges, universities, churches, hospitals, orphanages and old people's homes, as well as public schools, particularly can benefit from replacement insurance.

First of all, a nonprofit institution usually is dependent upon alumni drives, foundations and donations for money. Having an institution arrange its yearly budget to include a small additional insurance premium is a far easier alternative than having to raise

large sums of money from alumni. Second, institutional properties are not in a position to produce earnings to take care of capital investment. In a mercantile or industrial property, a corporation may charge depreciation each year on the original cost of its investment in accordance with federal Bureau of Internal Revenue allowances. Such an organization can set up a reserve, whether it is a book reserve or otherwise, for such actual depreciation. Also, the depreciation allowed by the bureau usually is higher annually than the actual depreciation taken for insurance purposes.

#### SHOULD BE REPLACED SOON

Institutional properties do not have the opportunity to build up such a reserve. So when a loss occurs, and there is not sufficient insurance to replace the property, fund drives must be inaugurated. Property must be replaced in a relatively short time to prevent further damage by the elements and, in most cases, the institution is seriously hampered by the lack of facility.

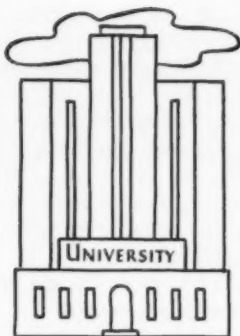
Obtaining sufficient money to replace destroyed buildings can be a major problem for a school district,

especially during these times when so many districts have reached the limit of their statutory taxing load. One of these burdened districts could find itself in dire straits if it were to collect insurance on a depreciated value rather than on a replacement cost basis.

Many metropolitan and suburban communities are governed by a strict building code, which stipulates that reconstruction of a place of public assembly should be a fire resistant shelter. For example, if a building were destroyed more than 50 per cent, the remaining portion might have to be torn down before the reconstructed edifice could comply with the building code. Incidentally, the demolition risk also is insurable.

The new Edward Dwight Eaton Chapel at Beloit College seats almost 1200 persons as compared with only about 700 housed by the former structure. It contains larger areas for offices and storage than were found in the original. Its range of facilities permits it to be a true center of campus religious and cultural life. In this case, what could have been an irreparable loss was turned into a gain for the entire student community.





# Putting First Things First in a Construction Program

CARL M. F. PETERSON

Superintendent of Buildings and Power  
Massachusetts Institute of Technology, Cambridge

IT IS FOLLY FOR COLLEGES TO EXCHANGE per square foot costs for buildings, loosely designated as dormitories, science buildings or libraries.\* We should be neither elated nor dejected when we compare our costs with those outlined in magazines with only the briefest kinds of descriptions.

Our main purpose should be the construction of a building that meets the requirements of the program, uses materials to their best advantage, employs details that permit genuine economy, rather than an economy that will later be offset by high maintenance costs, and makes sure that its services are not overdesigned but adequate.

This leads us into what is probably the most important part of a construction project and that is the writing of a program for the structure in sufficient detail so that a skeleton form of the building can be sketched and a thorough discussion of all services can be held.

Some of the essential points that should be clearly defined in the program are:

1. The most convenient location for the structure, in view of the people who are to occupy it.
2. Its connection to existing buildings.
3. Floor-to-floor dimensions with particular emphasis on extraordinary requirements.
4. The fenestration module to permit division of space for greatest flexibility.
5. Width of the building and modules of width.
6. Mechanical equipment.
7. Vibration problems.
8. Acoustical problems.
9. Other special requirements.

From a paper presented before the Association of Physical Plant Administrators, Pasadena, Calif., 1954.

\*Peterson, C. M. F.: When You Decide to Build. *Coll. & Univ. Bus.* 17:28 (October) 1954.

The importance of a properly written building program cannot be over-emphasized, since it is this document that spells out in detail the type of building wanted, and it is through this program only that the architects and engineers can interpret needs. This program can be written by the institution or in conjunction with the architects. In our case, it is usually written by ourselves prior to the selection of an architect. Following is a typical request for information to be used in the formation of a building program:

"We would appreciate your help in formulating answers to the following questions about space, services and fixed equipment in the proposed Physical Sciences Building. The information will not only help the architect in preparing an intelligent preliminary plan but will permit a better cost estimate to be made in the near future, which will permit an early decision on the scope of the building. Based on memorandum recently submitted, we are thinking of a building of 45,000 square feet of working space, extending north from the Dorrance Building and with a connecting link with Building 20 at either the ground floor or first floor level.

"Most of the questions concern each laboratory or office. For the building as a whole, we should give some thought to the relationship between groups of laboratories and offices, and the importance of keeping certain of the activities in the lower (or upper) floors for technical reasons. Also, it would be helpful to know if any special consideration should be given to security requirements in the over-all allocation of activities in the building.

"Some specific questions follow:

## A. General Construction Considerations:

1. What is the optimum size of bays in area which should be planned for the building? The best fenestra-

tion module or bay width? The best dimension of bay depth? (The bay sizes in Building 24 are: on one side of the corridor 13 feet wide by 19 feet 8 inches deep and on the other side of corridor 13 feet wide by 22 feet 8 inches deep. The bay sizes in the Dorrance Building are 18 feet wide (sub-module=9 feet) by 15 feet 8 inches deep on one side of the corridor and 18 feet wide by 29 feet 6 inches deep on the other side.)

2. Should the corridor be planned for the middle of the building or offset as it is in Building 24 and the Dorrance laboratory?

3. What is the optimum normal ceiling height desired? Are there special areas requiring extra ceiling height? (The ceiling height in Building 24 is 12 feet 6 inches and in the Dorrance laboratory 13 feet.)

4. Are there any special requirements as to window heights? The height of window sills? (This is a factor where laboratory benches back up to exterior window walls.)

5. Can the building be built of either reinforced concrete or structural steel?

6. What floor loading should the building be designed for? Are there any areas where extra heavy loadings will occur? (The floors around the institute, including Building 24, Dorrance laboratory and Building 20, are designed for 100 lbs. per sq. ft.)

7. What should the floor surface or covering be in the various areas? Normally floors are concrete. (Coverings such as asphalt tile, linoleum, etc. are provided only in special areas, some classrooms and offices.)

8. What should the partitions be made of? Are there any requirements for special materials in any area? (Normally cinder block walls are provided.)

9. What acoustical treatment is required in the various areas? (Normally

acoustical ceiling tile is provided in classrooms and some offices and laboratories.)

10. What vibration problems will arise from equipment in the various areas? Are there any areas which have to be treated specially to keep vibrations to a minimum?

11. What shielding problems will arise from equipment in the building not only to occupants of this building but also to neighboring buildings? Are there any areas in the building which will require special shielding provisions?

12. Are there any areas which will need to be specially lighted? (Normally 25 to 30 footcandles at desk height is provided.)

13. What is the size and type of freight elevator required? (It has been the plan that the passenger elevators in Dorrance will serve itself and the Physical Sciences Building and that a freight elevator in the Physical Sciences Building would likewise serve both buildings in that capacity. The characteristics of the freight elevator in Building 24 are: car dimensions 5 feet by 7 feet 6 inches and 7 feet high, capacity 4000 lbs.; and in the metals processing laboratory, car dimensions 9 feet 4 inches by 12 feet 6 inches and 10 feet high, capacity 20,000 lbs., speed 75 feet per minute.)

14. In general, what utilities will need to be provided for the building? Water, gas, vacuum, distilled water, compressed air, types of electricity? (For details of laboratory installations, see "Laboratory Equipment.")

15. What are the requirements for ventilation and air conditioning, if any? (Normally ventilation of filtered air would be provided.)

16. What, if any, refrigeration will be required? Constant temperature or cold rooms?

17. Will any furnaces or ovens be required, and, if so, where located?

#### *B. Laboratory Occupancy Requirements:*

1. How far will existing laboratory benches and furniture go in satisfying the needs in the new building? To what extent will this furniture need to be remodeled, refurbished or modified?

2. How much new laboratory furniture will have to be purchased?

3. Can standard types of laboratory furniture be planned throughout the building?

4. What are the utility requirements to these various benches and

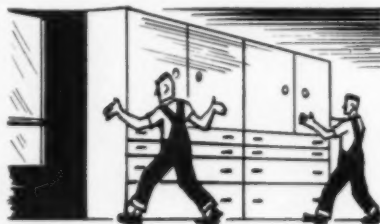
their locations: (a) Water (normal, distilled, total capacity)? (b) Gas? (c) Compressed air? (d) Vacuum? (e) Electricity—types and capacity required? Can direct current be supplied by generator or rectifiers? What grounding is required? Do we need special grounding rods? Will we need frequencies other than 60 cycle? Will any pieces of equipment having heavy loads be used?

5. What will be the size, type and location of sinks?

6. What will be the requirements for hoods? Any radioactive hoods?

7. Is the location of radioactive work located compactly in the building?

8. What provisions for floor drains in the laboratories will be required?



9. Will all laboratory equipment now in use be transferred to the new building? Will any new equipment have to be purchased? What equipment raises special problems because of size, weight, power or other requirements and, specifically, where are they to be located? What is the location of all equipment which requires wiring, plumbing or venting, and what are the capacities or quantities required?

10. What penthouse or roof facilities are needed for special purpose? How much roof area is involved? What utilities are required? Are there any other special requirements in this regard?

#### *C. Other Occupancy Requirements:*

1. What special shop facilities must be provided? Machine shops? Glass blowing shops, etc.? Can any of these shops be used jointly?

2. What is required in the way of shipping and receiving rooms? Can the building be serviced by the present institute facilities?

3. How many stockrooms will be needed? Where located? What floor loading problems, if any, will arise? To what extent can the stockrooms of the division of laboratory supplies in the Dorrance Building be used?

4. What are the areas and locations

of storage rooms? Are there any special storage or handling hazards to be dealt with, such as from radioactive materials and the like?

5. What is the number, size and location of classrooms that will be needed?

6. What is the number, size and location of lecture halls, if any? Do these need to be ramped?

7. What is the number, size and location of seminar rooms needed?

8. What sound and projection equipment will have to be purchased new? Demonstration tables and utilities therefor?

9. Are there any areas which will require special security provisions? If so, are they located in one section of the building? Can the outside entrances to the building be locked after 6 p.m., and access be provided via the currently manned Building 6, Building 20, and Building 7 entrances?

10. Will any method of light control on the windows be required by venetian blinds, shades or curtains?

11. Will any darkroom facilities be needed? If so, how many and how large? Where located?

12. Are there any special safety requirements? Any locations where sprinklers are mandatory? Special fire alarm provisions? Provisions for emergency showers? (Normally the building would be provided with a fire alarm system consisting of alarm boxes throughout the building, all connected to the central switchboard in Building 10. Sprinklers would not normally be provided except in an especially hazardous area. An emergency lighting system would be provided either by tying into the emergency generator in the buildings and power department power plant or through individual battery operated lights.)

13. What are the number and locations of drinking fountains or water coolers?

14. What is necessary in the way of bulletin boards and directory boards and where located?

15. Is there any reason for other than the master clock system and program bell system usually provided in our other buildings?

16. What are the requirements for telephones? Inter-office buzzers or communication systems? Is an underfloor duct system necessary or advisable?

#### *D. Furniture and Furnishings:*

1. What type and quantity of classroom and seminar room furniture is needed? Is there any reason why this

cannot be of the type normally provided elsewhere in the institute?

2. Will all present office furniture, including desks, chairs and files, be moved into the new building? Will this have to be refurbished? Will this have to be supplemented by new purchases and, if so, by how much?

3. Can certain standards for furnishing various types of offices be adhered to throughout, conforming to standards currently being applied throughout the institute?

4. What is the need for conference room furniture, if any?

5. Where will special furnishings such as draperies, rugs and so forth be required?"

The following factors, listed A to Z, indicate the steps taken by us from the first look at the cost comparison chart to the final acceptance of the building:

#### A TO Z IN BUILDING PROGRAM

- A. Cost comparison chart.
- B. Advantages of a fairly up-to-date plot plan and the advantages of models in preliminary site planning.
- C. The program in detail, specifically from the point of view of those who are to use the facility.
- D. Selection of architects and engineers.
- E. Borings and other construction data.
- F. Establishment of liaison during the time the drawings are being made.
- G. Indication of budget and billing.
- H. Determination of physical size of the building and sketch plans showing the architect's interpretation of the program.
- I. Outline specifications for materials and mechanical trades.
- J. Acceptance of the architect's sketches and outline specifications, with necessary changes, rearrangements or substitutions.
- K. Preliminary estimates by architects and engineers.
- L. Review of estimates.
- M. Changes in scope resulting from discussions of "L."
- N. Changes in plans necessary to meet changes in budget.
- O. Allowance for contingency.
- P. Working drawings, specifications and form of bid.
- Q. Review and acceptances of final drawings.
- R. Type of contract.
- S. Arrangements for issuance of change orders.
- T. Selection of list of bidders and subcontractors.
- U. Award of contract and establishments of construction schedule; workmen's compensation; certificate of insurance; credit.
- V. Bond.
- W. Construction supervisor or clerk of works.
- X. Flow line between owner, architect and contractor.
- Y. Arrangements for payment of bills.
- Z. Final acceptance of the building and analysis of all costs.

In my opinion, there is only one time money can be saved on a construction project and that is during the time the building exists on paper only. I feel that once the shovel has dug into the ground, the opportunity to save money has passed.

We feel that in order to get an economical building, we must request that estimates be on our bid form since this permits us to scrutinize each item in the estimate and to see whether or not any legitimate savings can be made; also, to justify any item that seems out of line.

After our program has been written and accepted, we make our own preliminary estimate on a bid form similar to that submitted to the contractors. By accepting contractors' bids in this form, we can ask for revisions much more intelligently than we could from a lump sum bid. And we can point out more clearly the fact that the deletion of one item might adversely affect another.

I should like to propose a form for our reporting of building costs so that as we exchange data we would have some sort of basis (admittedly not accurate) which would show in sufficient detail pertinent information so that by letter, at least, we might ask questions intelligently.

To start with, we should define the scope of the project. At the Massachusetts Institute of Technology we bring all fundamental services to within 5 feet of the building, terminated in a manhole, if such is necessary. We limit the landscaping chargeable to the building to this same 5 foot dimension.

We should specify, too, the floor and roof design loading, type of exterior, e.g. stone, brick, and so forth; type of fenestration, e.g. wood, aluminum, steel, and so forth; total gross area, and cubical content. We should also specify type of foundations; the general subsidence information; approximate number of rooms, or, if housing units, the number of students, and any other information that makes the building different from the orthodox conception of a building used for this purpose.

Our experience has been that by discussing our costs by means of a form, we have been of considerable help to people who are in the process of building a structure. By the use of this form it is possible to get a real feeling for the allocation of money in a building and changes in detail can be made

#### TYPICAL BID FORM

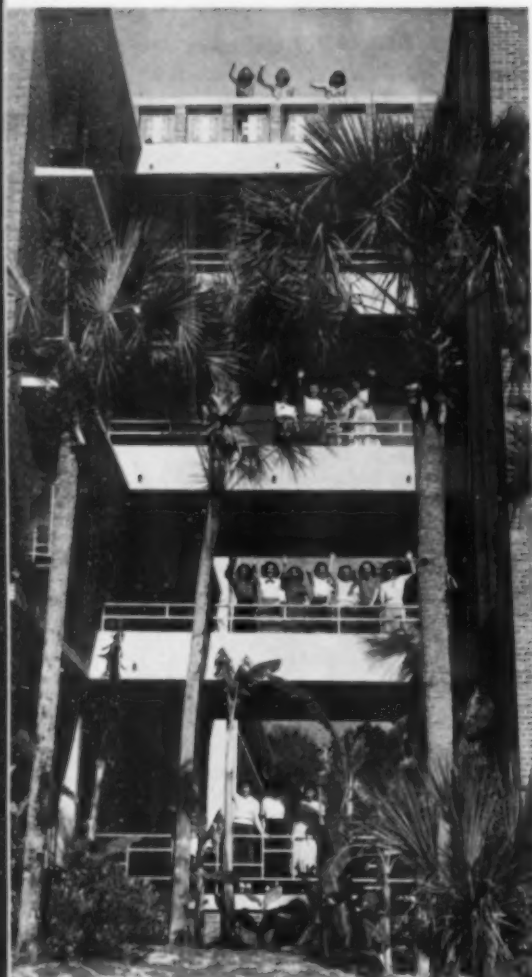
- General field overhead, including contractor's supervision
- Excavation
- Foundations
  - Piles and/or caissons
  - Concrete foundations
  - Waterproofing
  - Dampproofing
- Exterior walls
  - Brickwork
  - Stonework
  - Steel
  - Windows
  - Glass and Glazing
- Interior partitions
  - Plaster and acoustical work
  - Cinder and/or concrete block
  - Rough carpentry
  - Finish carpentry (including millwork)
  - Hardware (rough and finish)
  - Door frames, etc.
- Miscellaneous iron and aluminum
- Roofing and sheet metal (for roofing only)
- Floors
  - Rough structural
  - Cement fill and finish
  - Terrazzo, tile or other finishes
- Painting and special finishes
- Mechanical trades
  - Plumbing
  - Fire protection
  - Heating, ventilating and air conditioning
  - Electrical (including emergency lighting)
- Elevators and/or hoists
- Special equipment
- Furniture and furnishings
- Landscaping and paving
- Outside utilities
  - Domestic water and fire protection
  - Electrical
  - Steam
  - Sanitary drains
  - Storm and roof drains
  - Gas (or other special service)
- Contractor's fee

To this form we add the following for our building cost detail analysis:

- Architect's and engineer's fee
- Contingency fund
- Other costs
  - Borings, tests and surveys
  - Travel
  - Telephone, prints, photographs, etc.
  - Wrecking
- Owner's supervision

more intelligently, i.e. if the foundation cost seems abnormally high, it might be well to consider a new system prior to letting a contract. I believe that only by such analyses can we be helpful to one another and put a brake on the extremely loose talking and writing about construction costs. Even for a given building, the cost per square foot on one floor might be radically different from that on another floor and only when we completely define most of the factors can we consider the comparison of costs.





## **EQUIPPING RESIDENCE HALLS**

**J. S. REAVES**

*Director of Purchasing  
University of Florida, Gainesville*

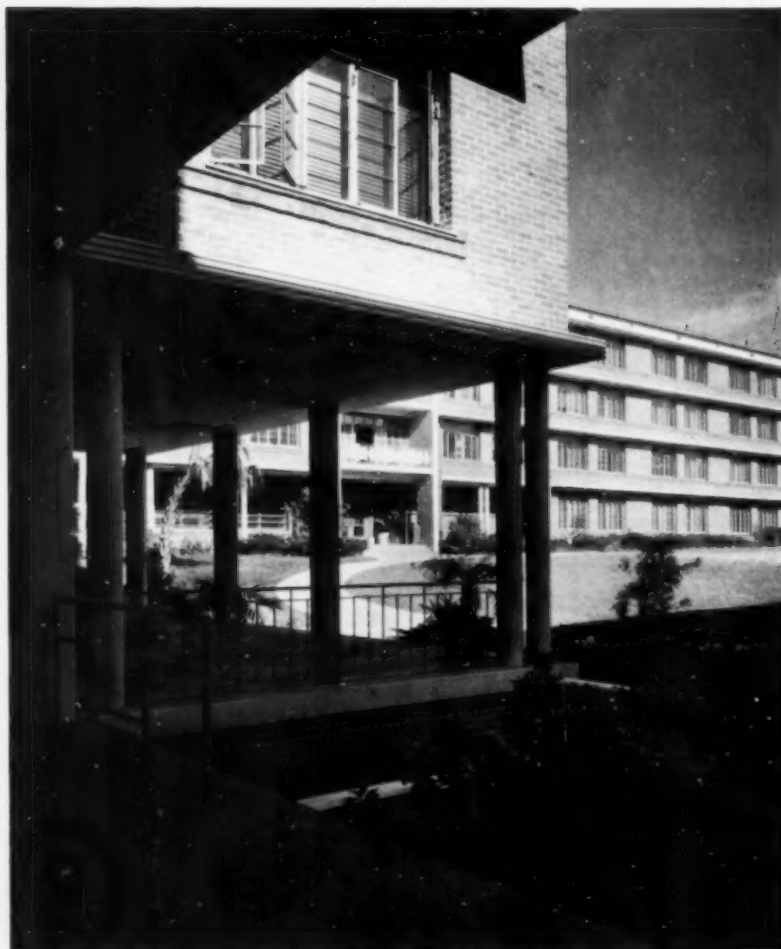
ABOVE: Breezeway between Mallory and Yulee halls in the women's dormitory at the University of Florida, Gainesville. RIGHT: Another view of the residence hall. The style of furniture used in a dormitory should be controlled considerably by the building's architecture. OPPOSITE PAGE: One of several lounges for women.

WE SHOULD CONSIDER RESIDENCE hall furnishings on a high level and in relation to plans for the building itself. The proper time to think of furnishings is before blueprints are made. At that time we should turn our thoughts to (1) the type and kinds of furniture to be used, (2) the requirements of the lounge and recreation areas, (3) the service facilities, (4) procurement and delivery problems, and (5) built-in equipment and materials for the maintenance of the building.

Initial planning and preparation of designs and specifications can be accomplished by several methods. One method is to procure on a fee basis the services of a professional designer, who can handle the interior decoration and design some of the furniture as well. Another method is to make use of the resources of the college of architecture and allied arts, the personnel of which may be qualified for this task. A third method is to work with the professional representatives of manufacturers in the furnishings field. A number of schools now main-

tain a part-time or a full-time decorator or designer on the purchasing staff. If the services of a professional designer are desired, extreme care should be given to the selection. To my mind, this is equally as important as selecting an architect, since the ultimate use of the building will depend largely on the furnishings selected. My belief is that it is best to have a designer who is not connected in any way with the manufacture or supply of furnishings. This way you are sure of receiving unbiased study of your individual problems with the selection not being influenced by furniture that is already in production and available.

Of the three choices, my preference is for an individual designer on a fee basis. He should be selected at the time the architect is employed. Through conferences with the architect and with other persons primarily interested in the housing problem, many necessary decisions can be made, such as the location of closets, windows and heating outlets. Structural design can be easily changed in the





initial stages of drawing the plans, but to make changes later requires costly change orders.

Planning must be coordinated not only through the designer and architect but through interested departments of the college, including the residence hall manager, maintenance superintendent, and any others who may later play a part in the operation of the unit.

Floor plans and layouts should be prepared on a scale large enough to permit study of desirable sizes of furnishings for a typical room. Room design can then be worked out on the basis of the minimum number of pieces of furniture required. The amount of furniture to be placed in a room depends, of course, upon the number of occupants and the total facilities to be provided by the college. We usually think in terms of a bed, chest of drawers, study desk, study chairs, and mirror as constituting an irreducible minimum. When funds permit, it is desirable to add at least one lounge chair per two students, bookshelves and, in some instances, night tables and lamps.

When these matters have been determined, the designer is then ready to start preparation of specifications for approval by the officials of the

institution. This approval is necessary, even though during this planning stage the designer has been working closely with the purchasing agent, business manager, housing officials, and others interested in the project.

The type and kind of furnishings to be used must be carefully selected to provide durability, comfort and economy and to have esthetic value. There is a wide selection of furniture on the market to meet particular requirements. Students in various colleges seem to have different requirements for work space and comfort.

We at the University of Florida like to standardize on residence hall furnishings when possible because standardization makes it possible for us to transfer furniture from one area to another. We base our furniture style somewhat on the type of architecture of the building. Today we think primarily of steel or wood or a combination of the two.

The location and type of the college or university will have a bearing on whether you select wood or steel for furniture. Many believe that wood provides greater versatility of design and warmth of feeling than does steel, but steel products have made progress toward meeting this challenge.

In the event that wood is used for desks or chests of drawers, we recommend top surfaces of one of the modern hard-pressed materials—something that is impervious to stains, cigaret burns, and similar types of damage.

At our university we have found the use of double desks more or less impractical. Reports indicate they are not conducive to the best study habits, and they present a problem in the arrangement of room furnishings. We have found it highly desirable to specify a desk larger than the size customarily made; ours has a 30 by 42 inch top.

Study chairs can be of the usual saddle type with a wood seat. We prefer an upholstered chair, with the cover of durable plastic. This may be a little more expensive initially, but if there is an upholstery shop on the campus the maintenance cost will be found to be quite low. Upholstered pieces not only contribute to color and decoration but also to the student's comfort.

One of the chief problems in planning residence hall furnishings is the type of sleeping arrangements to be adopted. In recent years the trend has been away from double-deck bunks. If that style is not used, then another choice must be made. The



ABOVE: Lounge in Mallory Hall. BELOW: Laundry room in Yulee Hall. A laundry, equipped with automatic washers, driers and ironing facilities, is a necessity.

most accepted type of bed today is the Hollywood bed without head or foot boards. We find this type of bed desirable, particularly in women's residence halls, because it can be dressed up with bolsters and pillows and it serves as a lounging area.

Then there is the matter of springs and mattresses. Is it going to be an innerspring mattress with box springs, a foam rubber mattress with coil springs, or a foam rubber mattress on a concrete slab? Our sister institution, Florida State University, has installed air foam mattresses on concrete slabs, and the results thus far have been highly satisfactory. The students complained at the beginning, but after two or three nights they became accustomed to the bed. Several coats of paint were put over the concrete slab to reduce wear on the ticking from contact with the abrasive surface of the concrete.

We have used two major types of bedding at the University of Florida: (1) the innerspring mattress with box spring and (2) the foam rubber mattress with box spring. Both are used on a simple base constructed in our own shops. The air foam mattresses have not been in use long enough for us to determine their comparative durability; however, 20 or 30 of them have been in experimental use since 1947, and we have found them highly desirable.

Double chests of drawers are more economical, we find, and probably much more useful to the residents. Care should be taken to select a design that will permit the drawers to operate freely. When buying wood





chests of drawers, it is well to bear in mind the moisture content of the wood from which they are to be manufactured. Because of the high humidity in Florida, we request manufacturers to use wood with a moisture content of from 10 to 12 per cent; northern manufacturers customarily use a moisture content of from 6 to 7 per cent. Variation in the percentage of moisture content in the wood used may cause considerable trouble. A wood products laboratory in the area can determine the moisture content desirable for your particular climate.

A student room should have a comfortable, durable chair. The use of plastic as an upholstery material has been mentioned; regular helical springs are satisfactory. It is important that the chair be so designed that its back does not touch the wall. This is accomplished by having the legs protrude slightly beyond the back of the chair.

Thus far we have been discussing the furnishings of living and sleeping rooms in residence halls. Now let us consider the second problem, furnishings for the public areas, lounges and recreation rooms. In purchasing furniture for student rooms, we have been thinking in terms of ordering fairly large quantities at a given time; this practice lends itself well to bidding and buying on the basis of specifications. In buying for lounge and recreation areas, however, only one or two pieces of a kind are purchased. Here one must lean heavily on the designer or decorator so that the style of furniture, materials, colors and all other factors can be combined for a good effect.

The items to be purchased must be selected from many lines of furniture and accessories. The designer or decorator in making selections must not overlook the quality of the materials used in the search for correct styling and color harmonies. The furniture recommended should be reinforced and much stronger in every way than furnishings purchased for the ordinary home.

It may be wise to obtain a contract with a decorator to procure the furnishings for public areas even though you may not use a decorator in furnishing the student rooms. This may be done on a cost plus basis, usually from 5 to 12 per cent above the cost of the furniture. This may or may not include the decorator's fee; the



ABOVE: Double room in Mallory Hall. Residence hall furnishings are standardized, when possible, because standardization permits lower maintenance costs and makes it possible to transfer furniture from one area to another. BELOW: Double room in Tolbert Hall. The trend seems to be away from double-deck bunks in favor of the Hollywood type. Chairs, upholstered in durable plastic, contribute not only color and decoration to the room, but also add to the student's comfort.



decorator will procure the furnishings at dealer cost without any percentage being added. We recommend contracts of this type. The making of draperies can be contracted for by the decorator or they may be contracted for separately after he has procured the necessary materials.

Furnishings and decoration of recreation areas are also the decorator's province. Ping-pong tables, pianos, television sets, radios and similar equipment should be purchased in the usual manner. The extent of the residence hall recreation area will depend upon other recreational facilities on the campus and their relative location. Even with good general recreational facilities available, it is desirable to provide residence hall space for the types of equipment just mentioned. As to types of furnishings, lawn or porch pieces are usually light, strong and inexpensive and therefore lend themselves well for such use.

The third major problem in furnishing a residence hall consists of service facilities for students. One necessity is the provision of laundry rooms, including automatic washers, driers and ironing facilities. A sewing room containing sewing machines and a room for hairdressing with electric driers, basins, stools and the like should be a part of the equipment of all women's dormitories. Coin vending companies will provide and maintain such equipment, collect the monies, and pay an agreed percentage on the profits, or the college may prefer to own the equipment. Such facilities are a good source of income to the housing department.

Many colleges have found it a great convenience to students to provide laundry and dry cleaning pickup stations; these are leased to the highest bidder in the area. This prevents the coming and going of laundry trucks as well as tradesmen's entering students' rooms.

The fourth problem to be met is procurement of materials and furnishings. We have already discussed the development of specifications for items desired; this is necessary whether you have arrived at a special design or are using a design already manufactured.

You should not hesitate to attempt to get furniture of a special design on the ground that the costs will be excessive. The quantity of furniture to be purchased at one time for a



Recreation room in the University of Florida's Tolbert Hall.

large new residence hall may represent what the furniture industry calls a "cutting." In this case, manufacturers are happy to bid on a special design. If you are buying your furnishings when the industry is going through a slack period—you can watch the markets for furniture and gauge your bids accordingly — you can get advantageous bids.

In the preparation of specifications for the actual procurement of furnishings, the description should be brief but complete so bidders will know exactly what is wanted. The specifications should state the quality of material, the minimum size of materials to be used, how the object is to be constructed, and the finishes. These details should be clearly described and should be accompanied by a detailed sketch of the item.

After a tentative award has been made, pilot models should be built and shipped to the college for its acceptance of the manufacturer's interpretation of the specifications. It is still possible for the manufacturer to make minor changes on the model so as to assure complete satisfaction on the part of the user.

When stock patterns are used, it is desirable to have a sample of every piece of furniture shipped to the college for comparison and tests to determine the quality, appearance and other pertinent factors. We never forget to submit a request for quotations to E&I, as that organization gets good bids from manufacturers for

special purchases of this type. We then let the E&I bids fall where they may.

Careful analysis should be made of all bids received, and samples of the proposed items should be closely inspected and given rigid tests. If large quantities of equipment are to be purchased at one time, it is helpful to send a representative to the manufacturer.

Purchasing agents always suffer torture over the problem of delivery. It is all but impossible to coordinate delivery of furnishings with the completion of the residence hall. You must work closely with this problem to avoid the necessity for storage, which is costly, troublesome and often damaging to the furniture.

The fifth and final major problem is that of maintenance equipment and supplies. This should be considered in the planning stages certainly. Many universities are finding it desirable to install a central cleaning system, *viz.* vacuum system for vacuum machines. Its use prevents wear and damage to stairs, elevators and corridors.

We have found it desirable, prior to the time the residence hall is completed, to stock at least one semester's supply of cleaning materials. The important thing is not to wait until the last minute and then, just as the residence hall is opening, try to get maintenance equipment and supplies.

Abstracted from a talk given before the National Association of Educational Buyers, Pasadena, Calif., 1954.

**Even in small college accounting**

## ***It Pays to Mechanize***

**LEONARD PRICE**

*Controller, Southern State College, Magnolia, Ark.*

BY INSTALLING A MODERN, MECHANICAL accounting system we have cut costs, provided control over revenues and expenditures, and now have current figure information available at all times for our business office, department heads, the college president, and the board of trustees.

Moreover, the time required to accomplish accounting work has been reduced, and we are able to prepare records that formerly could not be prepared accurately or economically, if they could be done at all.

The number of errors in our figuring work and the time spent in checking for errors has virtually been eliminated, and the books we have set up are neat, clean and easy to read.

Another most important result of the system is that each department head receives a monthly report of his budget account which states its exact current condition. The system has tended to establish among the entire faculty and college personnel a feeling of confidence and fairness in the financial program, because each department has its own budget based on its needs, and the department head knows exactly how the budget is being used.

Southern State College has an enrollment of approximately 1200 students and maintains about 125 employees, of which 70 are on the teaching staff.

About four years ago, the school administration generally agreed that details of expenditures and distribution of funds were not being recorded on comprehensive records, nor was adequate information available for the preparation of a sound budget. Although the figuring work was always at least a month behind, office expenses were still felt to be excessive. When books were closed at the end of the fiscal year, they contained no information of value for administrative purposes. The department heads

had no information showing what was allotted for the year, how much they had spent, or how much was left in their budgets.

After considerable study and investigation, we solved these problems by developing a system based on the operations of a typewriter accounting machine, and we have mechanized budgetary accounting, the general ledger, students accounts, accounts payable, and most of the payroll work.

On budgetary accounting, a daily journal of appropriation postings and a departmental ledger are prepared simultaneously. The ledgers provide daily balances for outstanding encumbrances, total expenditures, total budget, and the unencumbered balance for each department and for each departmental subdivision. The account-

ing machine operator merely indexes the total budget and previous balance into the machine and posts the encumbrances or expenditures. All totals and unencumbered balances are provided automatically.

We have 85 departments with departmental breakdowns of from three to 25 accounts. The monthly volume of work is about 600 purchase orders, 200 checks covering most of the purchase orders, and 80 breakdowns on payroll postings.

Once a month the figures from the accounts of each department are brought forward to a department summary sheet. From these sheets, a year-to-date report is prepared for each department, and a year-to-date expenditures, encumbrances and appropriation balances report is sub-



John E. Cleave (left), business manager, and Leonard Price, controller, observe office worker preparing records on machine which served as the nucleus for the development of Southern State College's accounting system.



mitted to the president, the controller, and the academic dean.

The general ledger is posted daily, with a journal of transactions being prepared in the same operation. The ledger sheets show total debits to date and total credits to date as well as current balances. All totals are computed and printed automatically by the machine. In most cases monthly trial balance on the general ledger is accurately proved on the first run.

The monthly general ledger volume is about 200 checks, 15 payroll postings, and 750 receipts postings (posted in lots with up to 15 breakdowns). From this ledger a monthly comparative report of income estimated and actual is prepared on the machine. It is submitted to the president, dean and controller, and shows both present year-to-date and previous year-to-date figures.

On students accounts, a simple ledger form is used with columns showing the date, reference, debit,

COMPARATIVE REPORT OF INCOME, ESTIMATED AND ACTUAL					
SOUTHERN STATE COLLEGE MAGNOLIA, ARKANSAS					
ACCOUNT	INCOME TO DATE	INCOME YEAR ADD TO DATE	INCREASE OR DECREASE	ESTIMATED INCOME	ADDITIONAL INCOME REQUIRED
STUDENT FEES - GENERAL	25,272.90	25,430.35	842.55	33,000.00	6,727.10
SPECIAL LIBRARY FEE	14,000.00	13,900.00	100.00	17,000.00	3,000.00
DAIRY INCOME	21,050.00	18,975.00	2,075.00	35,000.00	13,950.00
GIRLS DORMITORY	7,500.00	8,000.00	500.00	6,000.00	1,500.00
NELSON HALL	5,000.00	4,500.00	500.00	5,000.00	.00
TOTAL	73,822.90	70,805.35	3,017.55	96,000.00	22,177.10

COMPARATIVE REPORT OF EXPENDITURES					
SOUTHERN STATE COLLEGE MAGNOLIA, ARKANSAS					
ACCOUNT	EXPENDITURE TO DATE	EXPENDITURE YEAR ADD TO DATE	INCREASE OR DECREASE	ENCUMBRANCE YEAR ADD TO DATE	ENCUMBRANCE TO DATE
PRESIDENT'S OFFICE	2,500.00	2,450.00	50.00	35.00	4.50
BUSINESS OFFICE	7,500.00	7,550.00	50.00		45.90
EDUCATION	2,500.00	1,300.00	1,200.00	25.00	
ENGINEERING	5,000.00	5,670.00	670.00		57.00
BUSINESS & COMMERCE	2,885.45	2,500.00	385.45	555.00	602.68
TOTAL	20,385.45	19,470.00	915.45	615.00	710.06

BELOW: As the general ledger is posted, a journal of transactions (immediately below) is prepared as a by-product. Similarly, as a budgetary departmental ledger is posted, a journal of appropriation ledger postings (bottom) is provided.

JOURNAL OF TRANSACTIONS													
RECEIPTS - FUNDS - EXPENSES													
PREVIOUS TOTALS AND BALANCES				DATE	DESCRIPTION	REFERENCE NO.	DEBIT	TOTAL DEBIT	CREDIT	TOTAL CREDIT	BALANCE	MEMO	PROOF
RECEIPTS	EXPENSES	LAST DEBIT	LAST CREDIT	DATE	DESCRIPTION	REFERENCE NO.	DEBIT	TOTAL DEBIT	CREDIT	TOTAL CREDIT	BALANCE	MEMO	PROOF
7,150.00		7,150.00		3.00	ACCOUNT NAME - GARE ACCOUNT								6,733.09
					ACCOUNT NO. -								6,733.09
					SHEET NO. - 1								.00
6,733.09		6,733.09		5.00	APR 21 -	DEPOSIT	10	6,733.09	6,733.09		6,733.09		
					APR 21 -	CHECK # 950		6,733.09	35.00				
						CHECK # 950		6,733.09	59.75				
						CHECK # 957		6,733.09	275.00				
						CHECK # 958		6,733.09	105.35				
						CHECK # 959		6,733.09	3.13	403.25	6,329.84		403.25
													403.25
STATE A. & M. COLLEGE													

JOURNAL OF APPROPRIATION LEDGER POSTINGS															
SOUTHERN STATE COLLEGE Magnolia, Arkansas															
PREVIOUS BALANCES				ACCOUNT NUMBER	DATE	TRANSACTIONS					BALANCES AND TOTALS TO DATE				PAGE
Receivable Disbursements	Disbursements	Receivable	Unreconciled Balances			Subsidiary	Obj. No. P.O.	Year	Disbursements	Disbursements	Disbursements	Total Disbursements	Receivable	Unreconciled Balances	

REPORT OF EXPENDITURES, ENCUMBRANCES AND APPROPRIATION BALANCES					
SOUTHERN STATE COLLEGE					
Magnolia, Arkansas					
ACCOUNT NAME	BUDGET	TOTAL EXPENDITURES	UNEXPENDED BALANCE	ENCUMBRANCE OUTSTANDING	UNENCUMBERED BALANCE
BUSINESS & COMMERCE					
SALARIES	10,000.00	2,500.00	7,500.00		7,500.00
STUDENT LABR	500.00	350.00	150.00		
SUPPLIES	250.00	39.45	360.55	57.68	302.87
EQUIPMENT	750.00		750.00	545.00	205.00
TOTAL	11,500.00	2,889.45	8,610.55	602.68	8,007.87

REPORT OF EXPENDITURES, ENCUMBRANCES AND APPROPRIATION BALANCES					
STATE A. & M. COLLEGE					
Magnolia, Arkansas					
ACCOUNT NAME	BUDGET	TOTAL EXPENDITURES	UNEXPENDED BALANCE	ENCUMBRANCE OUTSTANDING	UNENCUMBERED BALANCE
PRESIDENT'S OFFICE	9,000.00	5,250.00	3,750.00	4.50	3,745.50
BUSINESS OFFICE	10,000.00	7,500.00	2,500.00	45.90	2,454.10
EDUCATION	5,000.00	2,500.00	2,500.00		2,500.00
ENGINEERING	7,500.00	3,000.00	2,500.00	57.00	2,443.00
BUSINESS & COMMERCE	11,500.00	2,889.45	8,610.55	602.68	8,007.87
TOTAL	43,000.00	23,139.45	19,860.55	710.08	19,150.47

Comparative reports of income and expenditures, illustrated at the top of the opposite page, are submitted monthly to the president, dean and controller. Department heads receive a report (top above) on the exact status of their budget. Totals of each department are brought forward on a report (bottom above) that also goes to the president, dean and controller of the college.

NAME Joe College		Account No.		
ADDRESS Cross Hall		Page No.		

DATE	DESCRIPTION	DEBIT	CREDIT	BALANCE
APR 30 5-	ROOM FOR APRIL	6.00		6.00
APR 30 5-	EXP RD FOR APRIL	35.00		41.00
APR 30 5-	RECEIPTS # 1509		41.00	.00

NAME Any Company		Account No. 15		
ADDRESS Any City, U. S. A.		Page No. 1		

DATE	DESCRIPTION	DEBIT	CREDIT	BALANCE
APR 8 5-	INVOICE # 1078		105.35	105.35 cr
APR 8 5-	INVOICE # 1999		94.65	200.00 cr
APR 8 5-	CHECK # 958	105.35		94.65 cr

SOUTHERN STATE COLLEGE				
Magnolia, Arkansas				

ABOVE: Student accounts (form at top) and accounts payable distribution are kept up to date and accurate on ledgers of a simple design. A student's statement may be prepared during the same operation that the ledger is prepared.

credit and balance. When desired, a statement for the student is prepared during the same operation that the ledger is posted. Approximately 1000 postings a month are made to students accounts. Here, again, the new balances and all totals are provided automatically by the machine.

On accounts payable, the distribution ledger is similar to that used for students accounts. Approximately 200 vendors are active each month and from 600 to 1000 invoices are received.

When posting the accounts payable distribution ledgers, the operator merely indexes the previous balance, then lists the amount of the charge into the machine. The ledger is printed with automatically extended totals to date for each distribution account. For proving accuracy, the distribution totals are compared with totals of checks written.

Three separate payrolls, two monthly and one bi-weekly, are maintained at Southern State. Because of special reports required by the state of Arkansas for the payroll checks and summary, these have not been mechanized. However, the earnings records and a payroll journal are done on the machine, and it automatically provides totals to date of earnings, the withholding tax, and the retirement or social security, whichever applies. We are attempting to devise a means whereby all payroll records may be done in one operation on the machine.

After this over-all system was installed, the number of full-time employees in the office was reduced from five to three, despite the fact that we now were preparing several additional new records. Shortly afterward, salary increases were made to the remaining three employees; still, we figured that the new system gave us an annual savings of \$4200 in personnel expenses.

The machine operator does all of the foregoing accounting work on the machine in approximately one-third of her working time. The other two-thirds is spent on secretarial duties, handling the veterans program, and filling in where necessary. During rush periods, such as registration, two student helpers are employed.

The accounting system we developed was reviewed at a controllers and business managers workshop at a midwestern university in 1953 and was highly recommended for schools of 7000 enrollment or less.

**Walks, drives, trees, shrubs, grass:**  
**All these are a part of**

## ***The Campus Beautiful***

**JAMES C. CAREY**

Landscape Architect  
Clemson Agricultural College, Clemson, S.C.

THE FIRST ACTUAL WORK TO PUT A landscape scheme into effect usually is, and rightly, the grading. The area should be surveyed and the grade established. When subgrade is brought to this level it should have sufficient slope to carry off surface water. If a slope cannot be obtained or if the soil is water bearing, it must be drained with agricultural tile. If the topography of the land is steep, it should be graded to give a rise of one foot in four to be easily maintained.

Walks and drives in themselves add no beauty to grounds devoted to the growth of grass, trees, shrubs and plants, but on a college campus they are necessary. The walks and drives should be located where they will be most convenient and, if possible, give the shortest distance between the points to be traversed. But unless the distance is very short, the straight line should be avoided. Students like short cuts and by persistent practice force us to make extra and straight walks.

### **WALKS 6 FEET WIDE**

The width of walks should be at least 6 feet but not wider than needed, for the wider they are the more they detract from the ornamental features of the campus and the greater will be the cost of construction and maintenance. Students usually go to classes in groups, which necessitates wider walks than we might otherwise wish. The width of drives will be determined by the amount of traffic.

Sufficient parking areas must be conveniently located where they will detract least from the landscape. The need for parking areas on the campus poses a formidable problem, and it is increasing with the years. Certainly, parking areas add no beauty to a landscape.

From a paper presented at the annual meeting of Southeastern Regional Association of Physical Plant Administrators.

Foundation plantings about public buildings must be studied in relation to the building design and also for harmony of character, line and form, texture and color. The five principles upon which good planting design is based are: simplicity, good relationship of scale, balance, sequence and focalization. These principles are of the utmost importance and need to be applied throughout any design, college or elsewhere.

When planting is done around buildings, the interest should center on the building and the focus should be the main entrance. Secondary points of interest are the windows and other openings. Repetition of these afford a key to unity between planting and building. Balance and good scale relationship require a knowledge of use of plants with regard to their texture and color. Simplicity indicates restraint in their choice and arrangement. A few plants of proper growth, texture and color arranged to create a correct balance with the main axis and leading to a focus at the point of entrance is the secret of good planting about a building. *What* plants are used doesn't matter much, but *how* they are used matters greatly.

One of the mistakes often made in foundation planting is the placing under windows of plants that grow too large. Many evergreens used are not dwarf types and soon outgrow their positions. Plants should be given ample space so when fully grown they will not touch one another. This requires a spacing of approximately 8 feet for large varieties and 5 or 6 feet for smaller varieties. Background plants should be at least 4 feet from the building.

Holes should be dug twice the size of the ball of earth around the plant. The holes should then be refilled around the plant with a mixture of

loamy top soil and humus. Humus is essential in the soil, for it allows proper aeration and promotes the development of beneficial bacteria. A commercial fertilizer should be applied in the spring.

Proper pruning will determine the life of most plants used in landscaping. The practice of sheering shrubs without thinning any of the inside branches should be condemned, for it not only gives them an unnatural form in which there is no beauty but it causes an increase in the number of imperfect shoots at the end of branches.

### **PRUNING IMPORTANT**

By careful pruning and proper arrangement, shrubs may be made to keep as good form and appearance for many years as though newly planted. In pruning shrubs, they are reduced in size and allowed to take their most natural form by cutting away old branches from inside and allowing new shoots to take their place. Flowering shrubs should be pruned immediately after they have finished blooming in spring. Broadleaf evergreens may be pruned any time of year.

Trees form the framework of the plantings; in fact, they are sometimes able to make a whole landscape by themselves. Since trees are permanent features, every detail of their planting should have close attention.

Holes for trees should be at least a foot wider than the spread of the roots and at least 24 inches deep. For a large specimen, the hole should be proportionately deeper. Broken and bruised roots should be cut off clean. One should avoid planting too deeply; trees should be set just a little higher than they have been growing in the nursery.

A slight depression should be made around the base of the tree, providing a cup for holding the moisture. After planting, a good mulching over the





root areas will conserve the moisture and greatly benefit the tree.

When transplanting, the tops of all trees should be reduced at least one-third by pruning. This will overcome the loss of feeding roots and conserve the amount of sap in the trees until new feeding roots are formed.

Trees should be fertilized every three or four years, a complete fertilizer such as 5-10-5 being used. The amount is determined by the formula: diameter in inches of tree 1 foot above ground + height in feet of tree + tree spread in feet. These, when added together, will give pounds of fertilizer to be used per tree. We use a 9 inch auger mounted on a tractor. Holes are drilled as the auger permits. The holes are spaced 3 feet apart in circles at the edge of the tree spread. Fertilizer should be mixed with well rotted compost when filling holes. The last 4 inches should be covered with topsoil. Tree roots are known to spread as much as 80 feet from the trunk in search of food and water.

If plants are kept in a healthy, vigorous condition the susceptibility to insects, fungus and scale attacks will be reduced to a minimum. Neglect of proper pruning often causes heavy damage to trees through high winds or ice storms. Dead branches and interfering limbs should be removed from trees at regular intervals.

Hedges are invaluable as screens and windbreaks and as a background for other plantings. Whether planted for beauty or screen, a hedge must have numerous branches close to the ground. This can be accomplished by cutting shrubs close to the ground when planted.

Two methods of grouping are commonly practiced: (1) the grouping of many flowering varieties in one mass whereby some kinds may be in bloom from early spring to late fall; (2) the

arrangement of large masses of one species or variety together so as to produce a marked and distinct effect.

The hedge can be low, medium or high, clipped or untrimmed and formal, dense or loose. Shrubs for untrimmed hedges should be spaced two to three times as far apart as the same varieties in clipped hedges.

Flower beds are expensive and require considerable maintenance; therefore, most colleges try to keep them at a minimum. Whatever is planted, the idea of massed effect should be kept uppermost. Something should be used that is large and showy and that doesn't require much attention. At Clemson we have featured flowers of the college colors and have had some good results with marigolds and purple petunias or large beds of mammoth purple and gold zinnias. We have found such a seasonal succession as the following practical: big triangular beds of bulbs in strategic spots such as King Alfred, Golden Harvest or Empress, planted 7 inches deep. After the bulb blooming season is over salvia or zinnias can be planted in the same bed; both bloom until frost. Later, smaller beds can be planted in pansies. Where flower beds are planted, there should be ample watering facilities, with sprinklers if possible. This eliminates hand watering, which is not only expensive but many times plants are destroyed by a garden hose being dragged through them.

Now as to the source of supply, some schools buy their plants from a reliable nurseryman. Plants large enough to be used in landscaping are fairly expensive. If the nurseryman guarantees his plants, then he wants to plant them with his own labor, thus running the cost still higher.

#### OWN NURSERY ECONOMICAL

Schools with sufficient land and labor will find it much cheaper to have their own nursery. The propagation and growing of plants is simple. Cuttings are made with a slanting cut below the eye. Conifers are made with a heel of the old wood. The length of cutting is from 3 to 4 inches long (one leaf should be left at the top). Placed in sharp creek sand, cuttings will root in three months. The next spring they can be placed in 2 inch pots or in beds 6 inches apart. The soil used in these beds or pots should be two parts loamy topsoil and one part humus, well mixed with a small amount of commercial fertilizer. They

should be grown in these beds one season and the following spring lined out in nursery rows or potted in 1 or 2 gallon cans. By fall the plants are large enough to be used in landscaping.

The lawn is the groundwork of the landscape and beautiful grass adds more to the campus than any one feature. The first requisite of a lawn is adequate drainage. A good lawn can never be obtained upon waterlogged soil. Grass does not grow well on either hard packed clay (incapable of allowing the penetration of air or water) or in a thin sandy soil so porous that no water will remain on it.

Trees and shrubs should, if possible, be planted before the lawn is established. The finished grade should drain away from the building in all directions. There should be at least 6 to 10 inches of good topsoil. One thousand pounds of compost should be applied to a thousand square feet and then the ground raked and rolled to form a good seedbed. At this point, a soil test will determine the fertilizer formula, and fertilizer should be applied at the rate of 50 pounds to a thousand square feet. Grasses make the best growth when the soil is slightly acid.

The lawn may be established in one of three ways: seeding, which is the cheapest, requires approximately three pounds to a thousand square feet; sprigging, which takes one growing season to give complete coverage, requires two bushels of sprigs of most grasses to a thousand square feet, or sodding. Sodding is the most expensive but gives an immediate lawn. For cutting sod we use a tractor drawn sod cutter that cuts 14 inch strips. The blade can be regulated to cut any depth. We usually cut ours 4 inches thick so as to get more topsoil.

After the lawn is established, the grass should be cut at least once every 10 days to a height of 2 or 3 inches. If possible, some form of fertilizer should be applied each year. The type of grass depends on climatic condition and geographic location.

To do a lawn any good, water should penetrate 4 inches. Light sprinklings do more injury than good. The idea that watering should not be done in the sunlight is wrong; if enough water is applied, it can be done at any time. Water is held in the soil only by decayed vegetable matter. If this is placed in the soil when the lawn is made, all is well. Even so, it is still a good practice to apply a compost or humus every two or three years.



A 72 foot expanse of glass dominates entrance to Commons building.

## ***The Commons—I.T.T.'s New "Main Street"***

**RAYMOND J. SPAETH**

*Vice President and Treasurer  
Illinois Institute of Technology, Chicago*

WHEN THE FOUNDERS OF SOME OF our great city colleges looked around for a desirable site 50 or 60 years ago they did not suspect that the choice they made would be threatened by a common enemy—blight. Blighted neighborhoods, right at their doorsteps, have forced administrators to vital and far-reaching decisions. They must choose between looking for a new, more desirable campus site and staying to re-create their own com-

munity. The new Commons building at Illinois Institute of Technology is the keystone in our development program, begun in 1940 when we chose to make our own location once again an attractive place in which to live and learn.

Once the decision was made, we mapped out a program of slum clearance that would expand our campus from 7 acres to 110. Illinois Tech's proposed campus was to be big be-

cause it was imperative that a pleasant, healthy residential area be a part of this center of technological education and research. However, providing residence halls and apartments was only half the job in creating this new community. Whether or not I.I.T. was to be accepted by prospective students, faculty and staff was critically dependent upon how well we could provide some of the more vital needs of community life: the stores and services

found along any town's main street. The Commons is Illinois Tech's main street.

Built with an eye to changing needs, the Commons now is a shopping center and resident student cafeteria combined. It has a grocery store and butcher shop, drugstore and snack bar, bookstore, barber shop, doctor's office, currency exchange, and dry cleaning shop, all located on the main floor facing the central kitchen-dining room area.

#### BUILDING IS FLEXIBLE

Dark hued terrazzo flooring covers the entire surface of this one-story structure, which is 96 feet east and west by 168 feet north and south. Cement block walls 7 feet high separate the stores from one another and translucent glass to the same height shields them from the dining area. The outer brick walls all come to the 7 foot level. From this height to the precast concrete slab ceiling, both exterior and interior separations are clear plate glass. The terrazzo floor runs under all cement block partitions, making it easy and inexpensive to expand the dining facilities simply by removing the cement blocks. Although more expen-

sive, the floor will be economical and simple to maintain. We needed this flexibility of space in planning for a larger dining room when the shops are moved into the proposed Community Building, which will be a more elaborate shopping center.

This building design, simple, rectangular and changeable, is the work of Ludwig Mies van der Rohe, who has designed most of our new buildings as well as the campus plan and who directs the I.I.T. architecture department. Its exterior conforms to those of the other campus structures: buff brick, exposed black-painted steel, and glass, characteristically strong and stable in appearance despite the flexible nature of its interior.

For the college official seeking to make the best use of his plant investment, there are valuable possibilities in Mies' design, which runs contrary to the architectural dictum, "Form follows function." Mies has said, "We do the opposite. We reverse this, and make a practical and satisfying shape, and then fit the functions into it. This is the only practical way to build today because the functions of most buildings are continually changing, but economically the buildings cannot change."

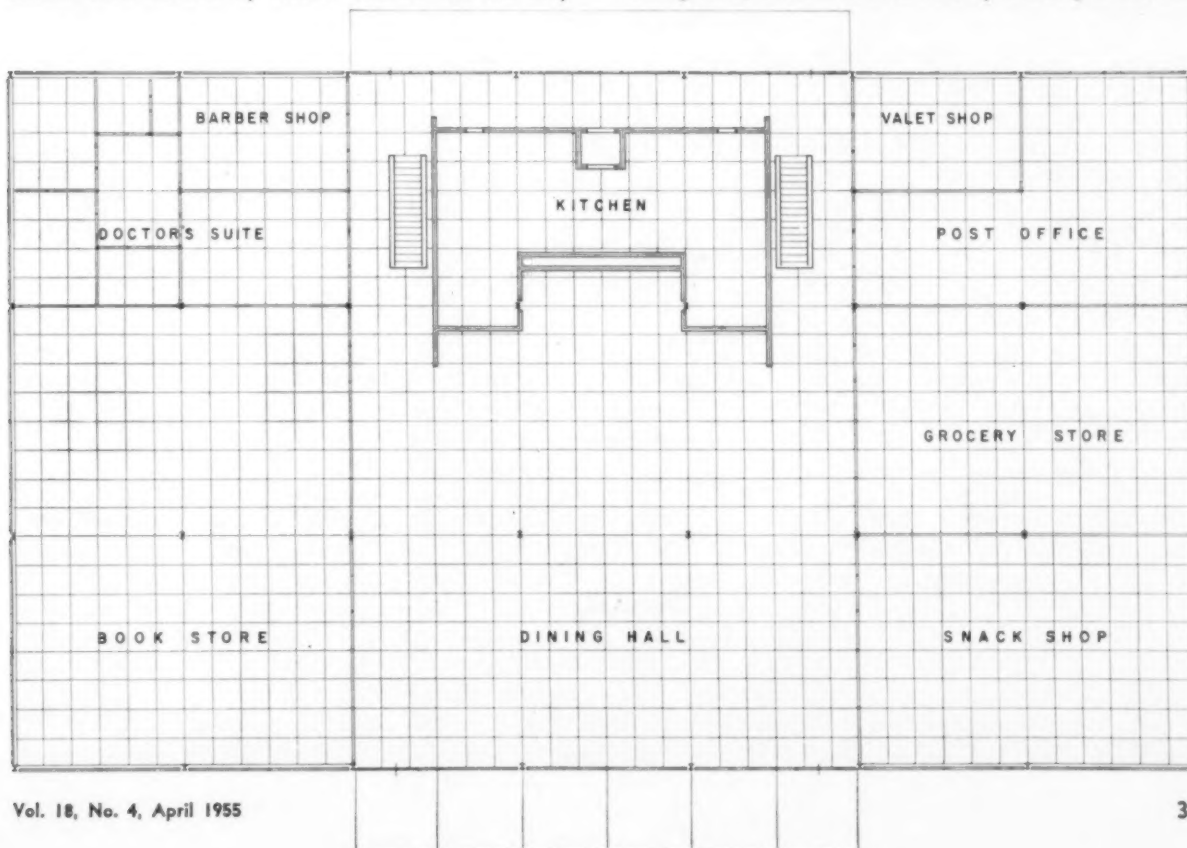
Such a change is exemplified in our own plans for serving the Illinois Tech community. Located within a block of most of the residence halls and fraternity houses, the Commons can expect up to 500 contract diners from them this year, with a potential of a thousand when the campus is finished. In addition, it must now serve the special needs of apartment residents in the 200-odd units of Gunsaulus and Carman halls. Two more apartment buildings containing a total of 144 more units now are under construction. In the not too distant future, we hope to get construction of the Community Building under way so that the Commons may assume its full-time function as a large dining room.

#### KITCHEN HAS SEPARATE ROOF

The only permanent walls within the Commons are those enclosing the kitchen "core," which also has a separate roof 3 feet below the main roof. All steel beams and columns are left exposed and painted black. Lighting is by evenly spaced fluorescent tubing attached to the concrete slab sections of the roof. Entering from the main entrance on the east, one sees a bank of shops behind translucent glass to

Floor plan of Illinois Institute of Technology's Commons building shows emphasis on broad, easily adaptable central area flanked by stores. Kitchen has the only

permanent walls inside the building. Partitions can be removed and the entire building used for student resident dining later, when a new community building is erected.







Above: Kitchen core has only permanent interior walls of building. Fluorescent lighting, hung from concrete slab ceiling, forms unique pattern with exposed steel beams. To the right of the kitchen is entrance to grocery shop.



Grocery store and butcher shop in Commons building, which also has a drugstore and snack bar, barber shop, bookstore, doctor's office, dry cleaning shop, and currency exchange, all of them located on the main floor.

either side of the main dining room. Directly opposite the main entrance and at the far end of the dining room is the white kitchen with its 24 foot cafeteria line, which appears as a smaller structure inside the larger one. Because all wall area from the 7 foot height to the 16 foot ceiling is glass, one has a view of sky and trees from any point on the Commons' main floor.

The building is constructed in bays measuring 24 by 32 feet. Thus, the central area of 6912 square feet consists of nine bays. Both front and rear entrance walls are plate glass from ground to roof and 72 feet wide, except for steel doors at the rear (west) entrance where the loading dock is located. Public doorways also are located on both sides of the freight entrance. Steel stairways on either side of the kitchen core lead to the basement. The stairs have terrazzo treads and risers and steel handrails.

Most of the basement has been left open for recreation and luncheon meetings. Along the north wall we have made room for four bowling alleys to be separated by an acoustically treated cement block wall from the rest of the area. Other space has been set aside for recreation facilities, including billiards and ping-pong. Directly beneath the kitchen are the utilities, equipment room, telephone booths, and restrooms. Waitresses have been able to serve up to 500 meals downstairs via dumb-waiter while the same Commons' kitchen fed 250 to 300 persons in the upstairs cafeteria.

The main floor's central area is ventilated by a system located atop the kitchen roof while a separate system draws off the kitchen odors. The shops, separated from the central area by glass, get natural ventilation from louvered windows of translucent glass in the exterior walls. Convectors along

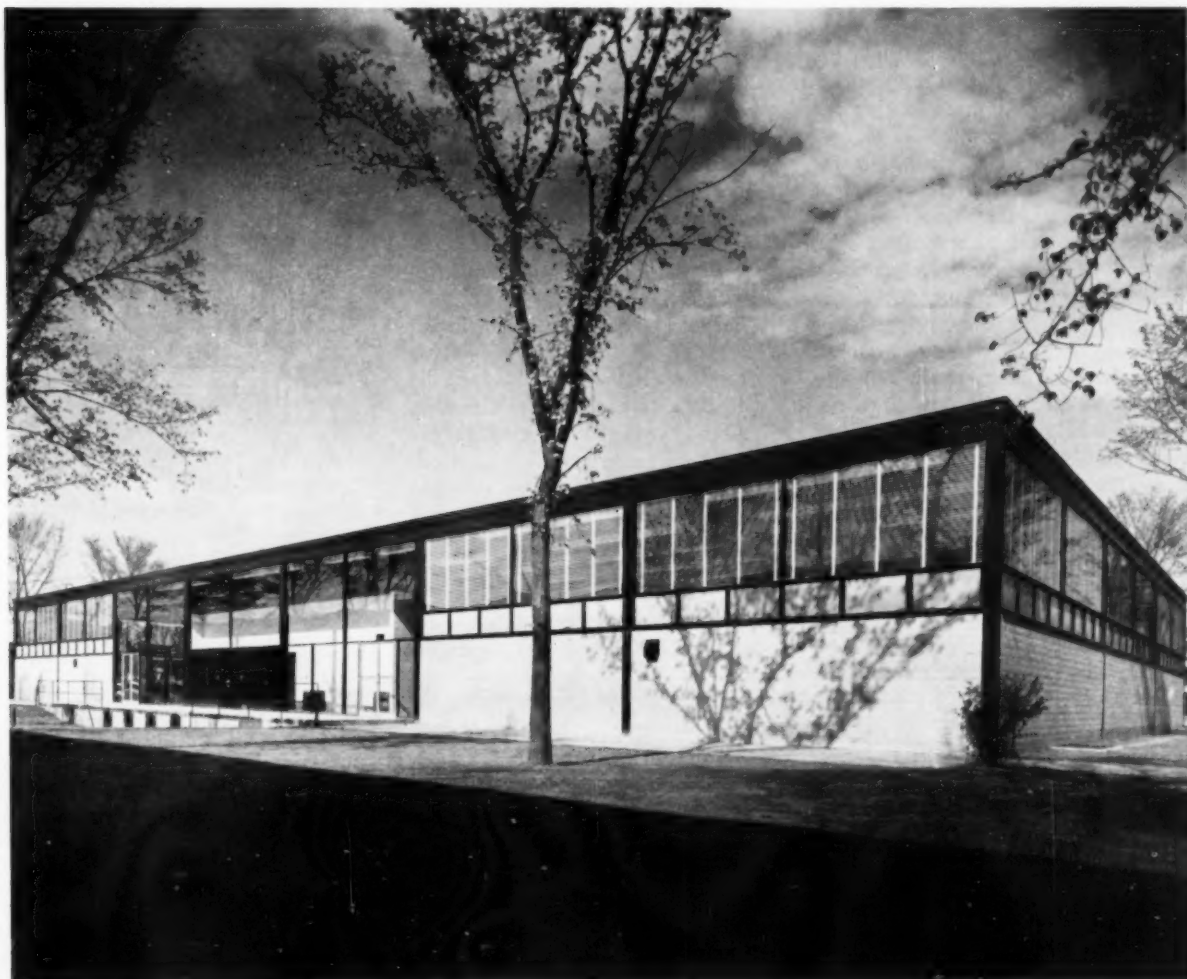
the perimeter of the building provide the heating.

The building, exclusive of land, cost \$365,000 or \$11.31 per square foot. This cost figure for a building like the Commons is below average in the Chicago area. In addition, approximately \$75,000 was spent on fixtures and equipment for stores and recreation areas, kitchen equipment, and landscaping. Mies van der Rohe had as his associates in the project the firm of Friedman, Alschuler and Sincere.

When it was announced that the Commons would provide the shopping services, our apartment dwellers were enthusiastic to say the least. Since it was officially opened last April, the Commons has helped sell many more on the desirability of living on campus. We think it is a vital element of urban campus life, in which education, research and community life make an attractive combination.

Rear view of I.T.T.'s Commons building, Chicago, shows depressed truck drive at loading platform. Except for metal doors in front of loading platform, rear entrance

is all glass like front. Public doors at either side lead past kitchen core to main dining room. Shops and services are located just behind the brick-walled areas.



# Coliseum Has Multiple Uses

**RICHARD A. ADAMS**

General Superintendent of Physical Plant  
Oregon State College, Corvallis

MORE AND MORE COLLEGES ARE forced to think in terms of multi-purpose buildings in order to capture space unobtainable in any other way. This account of building use will attempt to show the versatility of a large, well appointed multi-use building located not too far from our central campus. To achieve this purpose, an unselfish cooperative attitude of all departments is a necessity.

The Coliseum at Oregon State College was planned and constructed primarily as a basketball pavilion. Before construction was concluded, however, its advantages for multiple use were apparent to the college administrators. The campus, during the construction period, had only one, completely inadequate, auditorium for concerts, convocations and forms of entertainment. The ample size of the Coliseum floor, plus adequate seating and stage facilities, offered possibilities of group use long denied the college.

Relative to other campus buildings, the Coliseum is huge, containing more than 6 million cubic feet. It has a gross area of 216,000 square feet and a net usable area of 203,000 square feet. The basketball floor, comprising three cross-court practice areas, occupies 19,570 square feet. Excluding ramps for ingress and egress, the building is 360 feet long on the north and south axis, and 225 feet long on the east and west axis. Contrary to custom, the main basketball playing area runs east and west on the short axis.

The building was planned to house the department of intercollegiate athletics, including offices, dressing rooms, showers, projection rooms, ticket offices, and storerooms for equipment.

From a paper presented at the Northwest section of the National Association of Physical Plant Administrators of Colleges and Universities, 1954.

On completion, however, the pressure for space soon claimed the remainder of the building. Since that time, the air force R.O.T.C. has moved in, and it utilizes 6700 square feet of space for offices, classrooms and storerooms. The college museum, housing many items of early Oregon history, occupies 10,500 square feet in the basement. The college herbarium has claimed 4300 square feet on the second floor. The department of visual education has 2600 square feet. The Orange "O," a group of letter men, has 2100 square feet as a meeting place and clubroom. The business office has use of 2130 square feet of basement space for the storage of records. Altogether, other departments have permanently utilized more than 28,000 square feet of the building for college activities. This sizable use is seldom known to the casual visitor, who is more interested in the spectacles of basketball and concerts.

The floor presents an ideal playing area. For visibility purposes we experimented somewhat and finally settled on a surface of natural maple, with the basketball court proper treated with resin, not all rubbed off. The result gives the court a light yellow color with the wood grain still visible. From the upper seating area the floor presents a fine appearance. It was built up as follows: 4 inch reinforced concrete deck; 4 by 4 inch fir sleepers 4 feet apart on centers; 2 by 8 inch fir joists, attached to fir sleepers, 12 inches apart on centers; waterproof building paper tacked to joists; 13/16 by 2 1/4 inch T & G maple flooring.

For such a large building the acoustics is good. The only features actually adopted to provide this were tipping all concrete seat risers out at the top and applying acoustical treatment to the ceiling; the latter consists of 24 by 24 inch sound absorbing tile. From

the concert performer's angle, sound is poor. We are now in process of providing an acoustical shell over the stage to give performers quick return of sound in order that they may determine the quality of their performances. In the present building, the lag in sound return is too great for artists to gauge their performance.

Because the building has multiple uses, the physical plant has had problems on setups. Many concerts are given during the basketball season. This means concert setups must necessarily be made in two hours. To give an idea of the time involved in setting up and taking down facilities for the varied performances, the following determinations have been made:

Function	Setup Man-Hours	Take Down Man-Hours
Baccalaureate .....	24	12
Commencement .....	24	12
Concerts .....	17	8
Basketball games .....	12	6
Music festival .....	Variable	Variable
Convocations .....	6	3
Dances .....	35	6
Registration .....	32	40
Examinations (1000 students) .....	10	5

To give some idea of the scope of these setups, the following figures were compiled from 68 gatherings during the 1953-54 season:

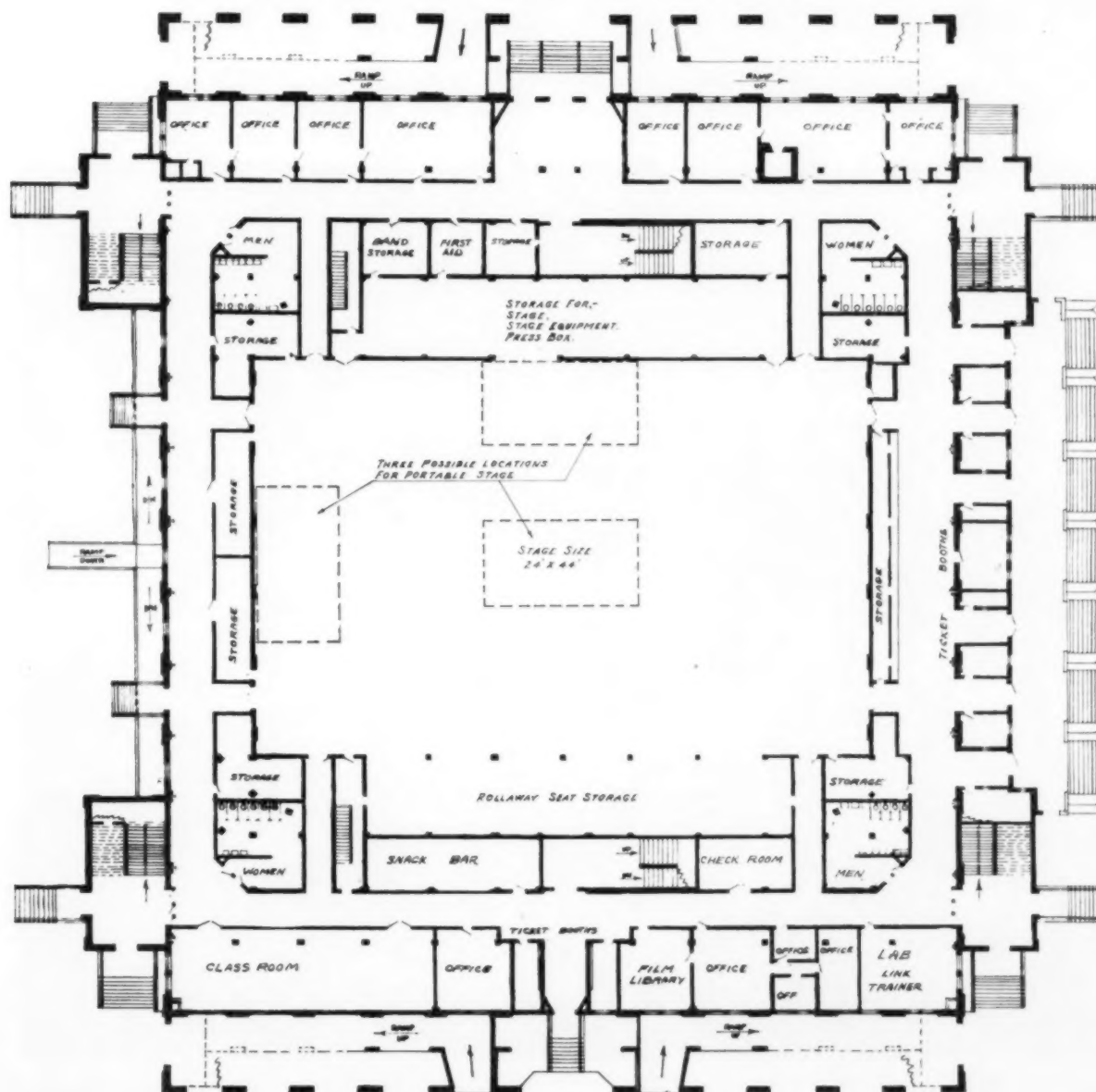
Function	No. of People
Commencements .....	11,400
Baccalaureate .....	11,400
College basketball .....	125,000
High school basketball .....	12,000
Concerts .....	36,000
Music festival .....	6,000
Bands .....	8,000
Registration .....	15,000
Convocations .....	12,000
Dances .....	12,000
Examinations .....	4,000
4-H use .....	7,200
Miscellaneous (including museum visitors) .....	33,000
<b>TOTAL .....</b>	<b>293,000</b>

It is of interest to note from these figures that much less than half the





EXTERIOR AND FLOOR PLAN, COLISEUM, OREGON STATE COLLEGE





Above: From 40 to 50 pounds of cornmeal (in lieu of waxing) is spread over the floor for dancing. Dances are held about four times a season, usually before or after the basketball season. Right: Soundproof booth used for broadcasting. Below: The basketball floor comprises three cross-court practice areas and occupies a total of 19,570 square feet.



use of the building has been by basketball crowds.

Multiple utilization of the main floor area caused damage to the floor surface. Soon after the concert series began, we obtained a canvas cover 60 by 120 feet, which completely



stretches over the basketball floor area and has proved satisfactory and durable. Chairs are set up on the canvas. The number of chairs set on the playing floor area for concerts is 800; baccalaureate, 1400; commencement, 1400; examinations, 1000; boxing matches, 400.

Dances are held about four times a season, usually spaced before or after basketball season. From 40 to 50 pounds of cornmeal is spread over the floor for these occasions. This works well in lieu of waxing. Our worst damage to the floor resulted from a state square dance festival. Heels of cowboy boots carved out neat circles of the floor finish, leaving a pock-marked surface to be refinished.

The seating areas offer an unobstructed view of the stage or basketball court. For concerts the stage is set up facing south, permitting a seating capacity of 7000. For baccalaureate and commencement the stage is set up facing east with a seating capacity of 11,400. For dances, the stage is set up facing east, and balcony seating is utilized as required. For large convocations, the stage is set about mid-floor, bringing the lone speaker nearer his audience.

Floor lighting for basketball games is excellent. Light fixtures hang to a point 50 feet from the playing floor. There are 67 lamps of 1500 watts each and four lamps of 1000 watts each over the playing floor area for a total of 104,500 watts of light. The fixture itself is a porcelain reflector suspended from a ball and socket joint. A cable permits the releasing of the hanger from the joint and the lowering of each fixture to the floor for relamping.

Original planning provided for a portable stage and backdrop. Each section of the stage is 4 by 8 feet and 30 inches high. It is durably constructed of fir with each section so built that it may be anchored with bolts to any other section. There are 33 sections, giving a stage area of 1056 square feet. The casters are laminated pressed wood and have been safely used for several years without damage to the floor. It was necessary to hand-sand the caster wheels after their installation to remove ridges from the molds. The platform has two sets of steps, which are also on casters, that attach by bolts to the stage. A backdrop is connected to the stage and is guyed to handrails of the

Right: Acoustically treated press box overlooks the basketball floor.



balcony for stabilization. The stage has a good, uniform surface when assembled owing to the fact that it was completely assembled after the flooring was installed and then was sanded. Except for backdrops, the stage is stored in a specially constructed storeroom immediately north of the basketball floor area. The backdrop hoists to the ceiling above the lights.

The stage is equipped with footlights. Floodlights and spotlights required for concerts are operated from mid-balcony as required.

A movable section, with outlets for telephones and power, is provided for the press, scorekeepers, timers and public address personnel. For game coverage it is placed mid-court about 8 feet from the sidelines.

Loudspeaker equipment, installed in mid-floor, hangs somewhat below light level to get most effective use. This level was determined by experience. This equipment, which works well for basketball games, has not proved satisfactory for concerts and usually is turned off except for announcements from the stage.

The large crowds naturally brought a serious parking problem. Within two blocks of the building, areas were developed for parking 990 vehicles by using standard parking methods. By parking areas solid, the car figure

is doubled. For large crowds, the entire campus is used and all lots are parked solid. Thus, we are able to handle about 5500 cars on campus. Any remainder must spill over into local city streets. Most local people living near by walk to games and concerts, thereby alleviating parking difficulties somewhat.

Prior to the Coliseum era, registration for each term was a problem for all concerned. Of necessity it was scattered over much of the campus, since no one building had adequate space for faculty members, students, registrar, personnel, business office personnel, police and student group registrations. The Coliseum houses the entire registration setup. Corridors and the main floor are utilized to make the process a continuous one.

Mass examinations of a thousand students are now easy. In other days these called for multiple setups and repetition on the part of professors, which is now avoided by using the Coliseum. Supervision of the examination is easy and the student may obtain help readily to questions.

The provision of space for 4-H youngsters formerly was a headache to the physical plant as far as setups were concerned. This has been greatly alleviated by the Coliseum. Improved surroundings and space have increased the scope of activities for this group





Above: Light fixtures hang to a point 50 feet from the playing floor. Left: Facilities are provided for 4-H activities. Below: One of several offices in Coliseum.



and greatly simplified control of the youngsters.

But there is an unpleasant side to the picture. The building was constructed with two concession rooms (which the physical plant hoped might be ignored) opening to the halls at balcony level. Shortly after the building was in use for basketball came the professional concessionaire. He brought with him peanuts, popcorn, hot dogs, doughnuts, coffee, pop, chewing gum, cigarets and candy. What a field day for the litter bugs!

Originally the building had been set up for janitorial care by the physical plant. Concession use made this impossible. The department of intercollegiate athletics solved the problem by having athletes perform this function. Now cleaning up after a Friday night game preparatory to a Saturday night game is not a serious problem, nor is it a burden to physical plant budgets. Cleanup for occasional concerts falling on Sundays subsequent to Saturday night basketball still presents some problems owing to the absence of athletes on Sundays.

Male students at O.S.C. are required, if physically fit, to take physical education. Prior to construction of the Coliseum, all activities in intercollegiate athletics were carried on in the old gymnasium. The Coliseum now houses all of these activities and has returned some 13,000 square feet of space to the full use of the physical education department. The result has been that both physical education and intercollegiate athletics have much improved facilities.

During the last school year there were 58 scheduled events held in the Coliseum. This large number of meetings involving thousands of people calls for careful scheduling of the building. In addition, a cooperative spirit from all users is essential. In order to remove departmental bickering over building schedules, all events are scheduled by the dean of administration, who is assistant to the president. His broad understanding of all campus activities has avoided conflicts and helped make events successful.

All in all, our Coliseum has broadened our horizons. The athletic picture has improved immeasurably; our classroom space requirements have been enlarged considerably; our office space has expanded; our cultural interests have increased, all because this space became available as part of a basketball dream.

A NEW DEPARTURE IN FRATERNITY housing is in the planning stage on the Carnegie Tech campus. Basic plans were approved recently to house four fraternities under one roof without the individual features distinguishing one fraternity chapter from another being lost.

The plan was initiated by the administration after a preliminary study revealed that some existing fraternity buildings had reached the end of their life span. The fraternities agreed that something should be done about it but differed as to what it should be. They wanted to retain their individuality. The administration, however, did not have enough money nor could it spare enough campus space for new individual houses.

A committee composed of fraternity advisers, faculty, administration and fraternity alumni representatives interviewed a number of prominent Pittsburgh architects and finally settled on a proposal by Lawrence Wolfe, a graduate of the Carnegie College of Fine Arts. His idea met the demands of space and ground limitations while maintaining low construction costs and preserving individuality within each unit.

The plan calls for a unit of four distinct houses joined under one roof. A driveway circling the building will provide parking space for 50 cars. A solid wall between each two houses ensures corporate entity. Only the basic structure of the houses are alike. The front and rear court areas can be landscaped, used as an outdoor living room, dance hall, exhibition space for characteristic fraternal displays or cemented for additional parking space or athletics, depending upon the taste and needs of the individual fraternity.

The pattern of brick on the facing of each unit is also the choice of the fraternity. This will give the building four different façade designs. Greek letters denoting each chapter will be mounted on the façades.

Each unit is built in an L-shape and is designed to house 36 men and to provide dining facilities for 50. On the first floor are lounge, dining and trophy rooms. The trophy room is in the corner of the L and can be thrown into the dining area or lounge for increased space when desired. A kitchen and a three-room housemother's suite are on the first floor. This suite also can be used as a powder room, cloak room, and general headquarters for women guests.

**A new departure in**

## ***Fraternity Housing***

**DANIEL MARDER**

*Editor, News Service  
Carnegie Institute of Technology*

The kitchen, adjacent to the living room, has a serving pantry through which students can pass for cafeteria style service if they desire. Recreation rooms with fireplace, snack bar, chapter room, and storage area are to be provided in the basement.

The second and third floors are sleep-study quarters. Washroom and toilet facilities are placed in the corner of the L on each floor. If the fraternity prefers, it can divide these floors into rooms accommodating two men with study and sleeping area partially separated or it can utilize larger segments with a common sleeping room for 18 men and study rooms accommodating four men each.

The fraternity can exercise its own ideas of decoration and treatment

within the walls of its house. Furnishings, including the kitchen, will be a fraternity responsibility.

Ground will be broken this summer, with completion date set for February 1956. Cost of each unit is estimated at \$115,000. Each fraternity moving into the first quad will make a gift to Carnegie Tech of 25 per cent of the cost. The other 75 per cent will be amortized over a 40 year period and will be paid through room rent.

Four fraternities already have requested housing in the first project. Other units will get under way when more fraternities are financially ready. However, all 12 chapters are entitled to suggest modifications. A building committee of trustees and the architect will consider these modifications.

Douglas F. Miner, director of student personnel and welfare, shows students model of new dormitory which will house four fraternal chapters.



## A Job Training Program

KATHRYN BRUCE

Educational Director, National Restaurant Association, Chicago

Every employer of personnel may have individual problems that will influence the type of training that will be most effective for the particular organization. Training is a function and responsibility of management and supervisory personnel and not a department unto itself. The success of any training program will be in direct ratio to the amount of time, effort and interest devoted to it on the part of management.

The general problems that provide stumbling blocks for most training programs are:

1. *Insufficient time to devote to training.* How often we hear: "I'm too busy to train employees," and yet the lack of adequate time may be due to unnecessary problems caused by the very absence of training.

2. *Lack of understanding and cooperation between employees and management.*

3. *Lack of support and continuous effort to establish training programs.*

Restaurant operators, for example, are aware of the need for training. Although the results of a problem may be recognized, the source of problems resulting from a lack of proper training are not always identified.

The specific problems in the area of personnel training include:

1. Lack of organization in operation, resulting in confusion.
2. Inadequate source of qualified supervisors and managers.
3. Inconsistent policies affecting employees and customers.
4. Faulty attitudes on the part of both management and employees.
5. Shortage of key-job replacements.
6. Pressure resulting from incompetent employees.
7. Turnover.
8. Need for better hiring and induction procedures.
9. Need for over-all training program.
10. Lack of training materials.

These problems are likely to continue unless definite measures are undertaken to correct them. If we wait for people automatically to change and become the type of employees we desire or if we depend completely on outside sources to do the training for us, little progress will be made. *We should start from where we are* in establishing a method of training the employees we now have.

Every college food service, for example, needs a training program developed within the organization to suit the particular operation. Employees learn from watching other employees, from the orders and directions given by supervisors, from the example set by management personnel, from customers, and from trial and error. The problem is one of establishing an organized system of instructing employees in the best job methods.

Regardless of the previous experience for formal training that workers may have had, it will be necessary to instruct them to do the jobs in the way you want them done. To depend entirely on the employees' initiative to learn by hit-and-miss methods results in a confused, disorganized operation. A well planned training program, based on uniform operating procedures, will assure retention and continuous application of job methods.

In observing successful training programs for commercial restaurants, I have found that there are some basic principles that are consistently applied. I should like to outline briefly a program developed by the Bishop-Stoddard Cafeteria Company of Cedar Rapids, Iowa. This program follows closely the general principles found in all good training programs. The National Restaurant Association recently published a complete outline of the Bishop-Stoddard training program in a book entitled, "How to Plan a System of Employee Training for Restaurants." The starting point of a program is

the decision of management "to do something" about personnel problems, and in this the personal participation of the manager is required.

### OUTLINE OF PROGRAM

#### *An approach to training*

1. Management must discipline itself to scheduling and devoting time to training.

2. The assumption must be avoided that employees don't want to help or aren't capable of improvement.

3. Management and employees should work together in setting up a training program.

#### *How to establish training system*

1. *Analyze present methods of operating.* Before attempting to establish a system of training, an analysis should be made and plans formulated for organizing the program. This will call for carefully reviewing the what, when, where, how and why of each job.

2. *Encourage employee participation.* It is natural for everyone to wonder, "What's in it for me?" Employees should be fully aware of why a training program is being started, how it is to be carried out, how they will participate in it, and how it will benefit them individually.

3. *Identify the definite job problems and areas needing improvement.* Problems must be identified and understood by employees and management.

4. *Set up a target of aims and objectives.* To give incentive to a program, establish some definite goals to be accomplished. "Satisfied customers" is a goal of interest to both management and employees. Management also has the goal of "increased sales," "decreased costs," and "increased profits." Employees have the incentives of "promotion opportunities" and "increased earning power."

5. *Decide on best methods of obtaining objectives.* Here again is an



opportunity for a restaurant operator and his employees to work together for mutual benefit. To achieve a goal, whether it be "the best food in town," "excellent service," or "increased profits," it will call for cooperation of all people engaged in the food service.

6. *Place the solutions in writing.* Volumes could be said on the importance of having operating procedures in writing and of the types of training materials that could be developed. A sound basis for operating is to have time-proven practices and procedures down in black and white. Employees then will understand that their work is to be done in a manner previously established and both management and employees have a "common yardstick" to gauge whether the work is being

done as intended. Training materials, placed in writing, will assure retention and continuous application of operating procedures.

7. *Keep employees involved in current situations as they develop.* The time to call on employees for suggestions and cooperation is before a decision is made. To give a group the feeling of belonging to an organization, it is wise to advise it of proposed changes in the training program.

8. *Follow through.* Set up a systematic routine of keeping the adopted procedures in effect. Close supervision is important to assure correct and continuous application of the methods outlined in a training program. Follow-through also will entail keeping materials and methods current, revising

them when necessary, and keeping interest alive through employee meetings, individual counseling, bulletin board reminders, and other methods.

These are briefly the steps used in the Bishop-Stoddard training program. The discussion would not be complete without emphasizing the reasons this company has found a "together approach" to employee training so successful. To quote the president of this cafeteria: "The 'together approach' is a way of operating a business. It is a means by which management encourages and obtains employees' interest and active participation in the conduct of his business. Employee knowledge and support are drawn upon, with house aims and objectives becoming a successful employee-management goal."

## "Yours Very Truly"

**HARVEY SHERER**

Assistant Business Manager  
Oregon State College, Corvallis

ARE YOU EVER ANNOYED AT THE usual letters of today? I am! For example, I had occasion recently to write to 25 universities all over the country. Frankly, I got bored and irritated with the routine letter. Let's examine the letters from and to these business managers and see why.

In the first place, as you first open the letter you are impressed with the distinguished simplicity of its heading. You know immediately from what institution the letter came. But *who* the heck's writing it? You must either turn to the end of the letter to find out or you're in the dark until you've finished the letter.

In the second place, the customary "Dear Harvey" or "Dear Mr. Sherer" or "Dear Sir" irritates me! Who does that big lug think he's "dearing"? If he writes "Dear Harvey," he's too darned aggressive because I ain't that chummy with many—much less him! If he starts "Dear Mr. Sherer," he's too dad-blamed formal! If he writes "Dear Sir," he's too cold, the jerk!

In the third place, the closing is even more "pansy-cal." If he says "Very truly yours," whom is he trying to fool? (I don't want him—even on a bet!) If he writes "Yours very truly," he's getting coy. If he writes

"Sincerely yours," he's entirely too close for comfort!

Let's look at my end of writing these letters. Why should I "dear" some jerk whose nose is so elevated he's in danger of breaking his neck? Why should I "dear" some vigorous, vital and efficient executive when the only one on earth who should "dear" him, and mean it, is his wife? Why should I—oh, nuts to "dear"!

The generally accepted ending to a business letter is equally obnoxious. Why use "Very truly yours" or "Yours very truly" when "I ain't his'n" or any one else's? What a statement for me to make—me, a Tennessean, a Scotch Presbyterian, and instinctive member of the Opposition! I wear no man's shoes, socks or hat. And yet I hypocritically, piously bow to custom and write that I am truly his! This is errant nonsense!

Furthermore, the word "very" is salt in my wounds. You will understand this, I believe, when you realize that I am a conscientious member of The Society to Avoid the Use of the Word "Very." So, VTY or YVT rubs me the wrong way.

Is there an escape from this psychological mess? I think so! Here is a recent letter from E. T. Jolliffe, as-

sistant business manager at the State University of Iowa. Look at it!

STATE UNIVERSITY OF IOWA  
Business Office  
Iowa City

October 11, 1954

Mr. Harvey Sherer  
Assistant Business Manager  
Oregon State College  
Corvallis, Ore.

E. T. Jolliffe writing—

In reply to your letter of October 5, to Mr. Ambrose, we do not have our physical plant stores set up on punch cards. I am sorry we can be of no help on this point.

/s/ E. T. Jolliffe  
Assistant Business Manager

You know at once not only from what university the letter comes but, more important, from whom. There's no attempt by the writer figuratively to drape his arms around me with an insincere "Dear"! Jolliffe doesn't know me from Adam's off-uncle—and he doesn't attempt to imply it, either! Nor is he pseudo-dignified with "My dear Mr. Sherer." I like it.

And there are no coy love pats to end the letter. A simple, courteous statement and his signature (so I'll know at least that he saw it)! A clean break, without any preliminary pawing or sparring around. I like it.

ON SEPT. 27, 1954, THE SUPREME court of Pennsylvania handed down a decision<sup>1</sup> of some interest to the students of the law of charities. It affirmed the decree of the Orphans' Court of Philadelphia County upholding the validity of a charitable trust created by the will of John McKee as against the claims of the surviving descendants of the decedent.

John McKee died in 1902. The following is an excerpt from his will filed for probate at that time:

"In order that such a number of poor colored male orphan children and poor white male orphan children . . . born in the city of Philadelphia, Pa., as can be trained in one institution may receive a better education . . . than they usually receive from the application of public funds, I order and direct that after the death of all my children and all my grandchildren who may be living at the time of my death, my said trustees shall hold all the said rest, residue and remainder of my estate in trust for the erection . . . of a durable and substantial fireproof college building . . . to be called 'Colonel John McKee's College,' which name shall be inscribed on a large marble slab on the front wall of said college building and in front of said college building shall be placed a statue of myself."

#### FURTHER STIPULATIONS

The will further stipulated that the annual income from the residue of the trust shall be used for the support of the college; that the purpose of the college shall be the instruction of its students in navigation and naval training; that the brass buttons on the cadets' uniforms shall carry the name "McKee."

The lower court, having found that the last of the grandchildren of Colonel McKee, living at the time of his death, had died, and that the total assets of the trust on June 21, 1952, amounted to slightly over a million dollars, ruled that the fund was grossly inadequate to fulfill the charitable purpose as specified in the will.

Counsel for the next of kin, in attempting to persuade the court to turn over the trust assets to his clients, now that it was evident that the specific purpose of the trust could not be accomplished, argued that the testator's real motivation and purpose was not charitable but self-glorifica-

<sup>1</sup>Estate of McKee, 108 A 2d. 214 (1954).

## Charity Never Faieth

### T. E. BLACKWELL

Vice Chancellor and Treasurer  
Washington University, St. Louis

tion; that the will shows no evidence of a general charitable intent, but merely a desire to create an institution to perpetuate the name of McKee. Since this cannot be accomplished, the estate should be given to his next of kin.

Chief Justice Stern, in repudiating this argument, quotes from a Pennsylvania case decided in 1888:<sup>2</sup>

"Who can say that the millionaire who founds a hospital or endows a college, and carves his name thereon in imperishable marble, does so from the love of God and love to his fellow, free from the stain of selfishness? Yet is the hospital or the college any less a public charity because the primary object of the founder or donor may have been to gratify his vanity and hand down to posterity a name which otherwise would have perished with his millions?"

Justice Stern continues his opinion in the McKee case as follows:

"The fact that the estate is inadequate to presently finance the construction and establishment of the college, as McKee envisaged it, is no reason why the benefaction should be stricken down and the estate distributed to the next of kin. . . . In the City of Philadelphia v. Heirs of Girard, 45 Pa. 9, it was argued that the terms of the will were so fantastic as to be impossible of fulfillment. The supreme court of Pennsylvania said of the argument:

"Possibly some of the directions given for the management of this charity are unreasonable and even impracticable, but this does not annul

<sup>2</sup>Fire Insurance Patrol v. Boyd, 15 A 553, 1 L.R.A. 417 (1888).

the gift. The rule of equity on this subject seems to be clear, that when a definite charity is created, the failure of the particular mode in which it is to be effectuated does not destroy the charity, for equity will substitute another mode. . . . The doctrine of cy pres . . . is the doctrine of approximation. . . ."

The court then proceeded to direct the trustees of the McKee fund to continue to hold the fund; to award annually, from income, under the direction of a scholarship committee to be appointed by the court, scholarships to poor white and Negro orphan boys, preferably of the city of Philadelphia, seeking naval training at established institutions offering such instruction.

The court also directed the trustees to seek additional funds from foundations and to report within five years as to whether sufficient capital funds have been obtained for the establishment of the "Colonel John McKee College."

Despite the willingness of courts to apply the ancient doctrine of cy pres where it can be shown that the original purpose of the donor cannot be accomplished, college administrators should take note of the fact that their own governing boards cannot modify the terms and conditions of a charitable trust imposed by the donor, even with the donor's consent and approval.

#### BECOMES VESTED RIGHT

As soon as a charitable trust has been created and accepted for administration, as of that instant the interest of the general public in the trust becomes a vested right. In the absence of reserved powers in the instrument of gift, neither the donor nor the donee, nor the two acting in concert can modify the terms and conditions of a charitable trust, once it has been accepted for administration. In our Anglo-American system of jurisprudence, a court of equity, in consultation with the attorney general of the state having jurisdiction of the trust, is the only instrumentality vested with power to apply the doctrine of cy pres.<sup>3</sup>

<sup>3</sup>Bogert: Trusts and Trustees, Vol. II, Pp. 1228-29. West Publishing Co. 1935. See also:

Scott on Trusts: Vol III, para. 2672, Little Brown & Co. 1939.

Restatement of the Law of Trusts, Vol. II, para. 367, American Law Institute Publishers, 1935.

## Four important points in

# Cost Accounting for Food Operations

**DOUGLAS C. OSTERHELD**

*Associate Director, Wisconsin Union  
University of Wisconsin*

MANY COLLEGES AND UNIVERSITIES have comprehensive systems of cost accounting for their food services. Still others have little cost data for food operation, owing to lack of any system or to the fact that the business office has not been particularly helpful in creating or providing helpful cost data. My remarks here are addressed to those in the latter group.

Four important points in cost accounting of food operations are: (1) departmentalization; (2) knowledge of total costs; (3) recognition of the importance of wage cost control; (4) procurement and use of comparative cost data.

### **VIEWING SEPARATE OPERATIONS**

With respect to departmentalization, many food service directors have been using systems specifically designed to avoid treatment of operating costs except in totals of all types of service offered. However, when there is more than one food operation under a single administration, and even within a given building, the only way in which the head administrator, whether dietitian or business manager, may know what is going on is to be able to look at each food operation separately, without having to interpret all the variable factors that may explain the composite result.

Assume that there are a cafeteria, a snack bar, and a dining room having table service under one person's direction either within or outside a single building. Instead of receiving a food cost, a wage cost, a laundry cost, a glass and silver cost in total for these three units, the food administrator can take effective action quickly only through knowing which unit actually is responsible for that high wage cost or that high food cost. If the operational results for each unit are reported, the food administrator can place the responsibility for the par-

ticular problem and determine the solution.

The food director should know all of the costs involved in an operation with as much segregation and detail as is humanly possible so long as he isn't overloaded with cost data. With the net profit of the biggest and best food operations lying in a range of from 2 to 4 per cent, it becomes evident that knowledge of each important element of the total cost picture must be available so that proper corrective action can be taken.

Just as in the case of failure to departmentalize, too much lumping together of costs into general classifications makes it difficult and/or unlikely that the food director will go through the process of finding out whether any costs are out of line.

Up until a few years ago it was possible for most food service directors to operate on the theory that if the food cost was in line—say between 40 and 50 per cent, depending upon the type of service—they would come out all right. Since World War II there has been a major upheaval in accepted standards of restaurant management brought about by 100 to 200 per cent increases in wage rates. In many cases the wage cost now equals or even exceeds the food cost. Many operators, thinking only of the old emphasis with respect to food cost, are still ignoring this new and tremendously significant factor in food operation — wage cost. They spend much effort and money to determine the daily food cost, yet do little or nothing to get the same data on wages.

### **ANALYZING WAGE COSTS**

There are two important factors: (1) the wage cost analysis to be performed daily, at least on a sampling basis, and (2) the effect on pricing of the change in ratio of expenditures for food and wages.

It has been our experience at the University of Wisconsin that figuring the daily wage cost on a continuous basis is too expensive in terms of additional information obtained after an initial test period. A test period of two or three weeks at the beginning or shortly after the beginning of each school term provides the most useful tool we have found in measuring the adequacy of the scheduling of employees performed by our supervisors. To learn what per cent of the wage cost for each of the meals served is due to full-time personnel or to part-time student help makes it possible for us to pin-point the area and the meal at which we seem to be having wage difficulty. We can begin looking at the particular schedule causing the difficulty immediately and can thus spot scheduling procedures that are being followed as a matter of habit. When forced to review all of our procedures because of the red signal light flashed by the figures, we can make adjustments that a perusal of the schedule itself is unlikely to reveal.

### **CUTTING DOWN ON HELP**

In addition, through periods of contraction in the volume of food service, without a cold and impartial measuring device (the daily wage cost), we are likely not to reduce our help sufficiently to keep wage costs in line. I am not suggesting that under all circumstances it is possible to match volume reduction with an equal wage percentage reduction, yet I feel that this meticulous and detailed analysis for short periods of time on a specific-meal-being-served basis enables us to come closer to keeping costs in line than does any other technic.

We have had a situation in which our volume has been cut almost in half since the 1947-48 peak. During this time we have experienced wage



rate increases considerably in excess of 100 per cent. We show an increase in our wage percentage, to be sure, but it is considerably less than one might expect on the basis of these other factors and considerably less than it would have been on the basis of a simple appeal to our supervisors to make reductions to bring their costs into line.

Specifically, we have had, along with gradual reduction in volume and substantial increases in wages, a gradual increase in our central kitchen preparation costs. It became apparent that a major study should be made in the kitchen with respect to job performance and job simplification as well as scheduling.

The final outcome of our studies, initiated by the results of our daily wage cost, was the revelation that specialization on the part of the cooks, the special privileges that had been granted over a number of years with respect to days off, and so forth, were completely hamstringing us in terms of proper job assignment and scheduling for today's volume. As a result, all special privileges were abolished; everyone was put on an equal basis, and a reduction of three full-time persons, along with some part-time help, was effected. In terms of weekly wage cost we were able to make a reduction of almost 10 per cent, and in the process of eliminating privileges whose origin went back to days of fewer job opportunities, we were able to make a fairer distribution of our work load with a potential for still further cost reductions. Moreover, we eliminated much of the ill feeling among employees that grows out of dissimilar treatment.

A useful by-product of this examination of daily wage costs is the constant review of processes, and this leads to the introduction of work saving equipment and work simplification. We are victims of habit, and many unjustifiable processes are being followed. A check on daily wage costs will not only force the food service director to look at the scheduling but will force a hunt for methods of work simplification and for equipment that will enable one cook to do the work of one and one-half or two.

#### EFFECT ON PRICING

A second factor emphasizing the importance of wage cost data is that, under the old rule of thumb method wherein for successful operation we

tried to achieve a food cost somewhere between 40 and 50 per cent, we developed a pricing system that was directly related to it. If we were operating on a 50 per cent basis, for example, we were likely simply to multiply the raw food cost for a particular item by two and say that that should be our selling price. It worked successfully when wages represented from 20 to 25 per cent of our dollar income. Now, when most food service operations are in the 35 to 45 per cent wage range, we should recognize that achieving the desired food percentage on a low-cost item may still leave us in difficulty in our over-all operation.

Take as an example an entrée designed to sell at a 50 per cent food cost for 20 cents and one at the same food percentage for 40 cents. In the case of the first entrée there is a margin of only 10 cents to cover wage



costs and all the other costs involved in the food service. The margin on the second is 20 cents. In most cases the labor involved in preparation and serving of the two entrées is about the same, yet we have just half as much margin to carry the low-cost entrée as we have for the more expensive one. In our pricing practices we must recognize other elements of cost besides food costs and not reduce the food cost on less expensive items below the desired over-all food percentage standard that has been adopted by the management.

#### EXCHANGING COST DATA

Within both the college union and the residence halls fields, groups of schools are exchanging information with a view toward establishing a uniform system of financial reporting. In the college union group those participating in this exchange of data believe that a number of benefits will result from establishment of a yardstick for measuring operations. In operational comparisons for the last fiscal year, there was a range of 8 per cent between high and low raw food costs

in relation to the total food business for the unions in the survey. This range has been narrowed from the previous year, which had been almost 10 per cent. The range changed from 42.2 to 51.2 per cent raw food cost for the fiscal year 1951-52 to 38.1 to 46.1 per cent for 1952-53. There is, however, a close enough grouping so that the median of 42.6 per cent, or the arithmetic average of 42.8 per cent, can have real significance when a particular operation is judged.

#### WAGE RATES VARY WIDELY

Even though college unions have a standard that results from like figures being used, there still are variables, such as the relative volume of various types of service that go to make up the total. In the college union field an organization with a high ratio of cafeteria volume is going to have a higher relative food cost than one having a larger volume of catering. Even so, we have a much more realistic standard by which to measure operation.

In connection with wage costs among the unions in the survey there is a range of from 33.5 to 49.1 per cent, or a spread of 15.6 per cent, a variance twice as great as that experienced in food cost. The institution with the lowest wage rate did have the lowest wage percentage, but several other institutions with wage rates twice as high were among those with the lowest percentages, and those at the top percentage were not those paying top wages.

#### SOME SPECIAL CONSIDERATIONS

When comparative cost data are exchanged with other institutions, several important factors should be considered, such as (1) geographic locations; (2) size of college or university; (3) kind of school (residential *vs.* a commuting type of school), and (4) size and type of the physical facilities that are being compared with one another.

The more specific the items being compared, the greater the validity of the operation. If we compare cafeteria operation only instead of combining all food operation, the more meaningful the standard becomes through the elimination of several variables. The more we can take into account such factors as variations in wage rates, relative volumes of different types of services, and prices charged, the greater will be the accuracy.

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# NEWS

**Calls Faculty Salaries Chief Worry . . . Tuition, Special Fees, Board and Room Charges Take General Rise . . . Pending Federal Legislation Is Reviewed . . . Workshops, Institutes and Convention Speakers Announced**

## **Calls Faculty Salaries Education's No. 1 Worry**

BRONXVILLE, N.Y.—Faculty salaries are the most urgent problem facing American higher education, according to President Harold Taylor of Sarah Lawrence College.

In his annual report to the board of trustees, Dr. Taylor said that "at Sarah Lawrence, as in other private colleges, the faculty members, by reason of their devotion to education, are providing an education for other people's children at great cost to themselves."

He stressed the fact that the relative position of the teacher in the national economy has declined so drastically that with a cost of living increase of 72 per cent between 1940 and 1950, college faculty salaries increased on a national average by only 42 per cent. During the same period income in manufacturing increased 140 per cent, in medicine 123 per cent, and in dentistry 126 per cent.

Dr. Taylor pointed out that the sheer rapidity in the growth of the country's population and economy has outstripped the ability of education to keep up. "To put it simply," said Dr. Taylor, "the result is that the private college is unable to finance itself, whereas tax-supported institutions have and will continue to have sources of public funds for their purposes."

Dr. Taylor took issue with educators who contend that too many students are going to college now and will do so in the future.

"If we assume that human intelligence is all of one kind, that the intellect is everywhere the same, that it ripens at exactly the same age in every person in every culture, then we are correct in classifying boys and girls according to the scores they make on conventional intelligence tests and on the correct answers they give to exam-

ination questions, we could therefore justify the idea that we should keep as many people out of college as possible." Colleges are not justified in doing so, Dr. Taylor contended, because of the untapped potential in the rising generation of American youth.

## **Nevada President Again Accused of Dictatorship**

RENO, NEV. — For the second time within two years Dr. Minard W. Stout, president of the University of Nevada, is in the midst of bitter controversy over charges made by a faculty member that academic freedom on the campus is being threatened. It was reported that all the deans of the university's 10 colleges came to the president's defense, even though disagreeing with some of his policies. They described Dr. Stout as a capable leader, not dictatorial.

As a result of the charges, the regents voted after a five-hour hearing to seek an impartial investigation of the university's administration. The attorney general of the state was asked by the regents to communicate with the American Council on Education, the Association of State Universities, and the Association of Land-Grant Colleges in order to determine what competent investigating bodies are available to undertake such an inquiry. It was also reported that the legislature was considering the allocation of \$15,000 to cover the cost.

The investigation was requested by Dr. Allvar H. Jacobson, 43 year old associate professor of sociology, in a letter he wrote to the regents, Governor Charles H. Russell, and legislative leaders. In his letter he said that nobody on the faculty was "immune to the inhuman and suppressive treatment" of Dr. Stout. The president almost immediately joined in the demand for an impartial investigation.

## **What's Afoot in Way of Federal Legislation**

WASHINGTON, D.C. — A recent bulletin of the National Education Association reports on the status of current legislation as it refers to higher education. Most legislation is still in the discussion stage before House and Senate committees, but the following may be of interest to college administrators:

*Surplus Property.* A subcommittee of the House committee on government operations has completed hearings on H.R. 3322 which would emphasize the intention of Congress that surplus property should, whenever possible, be donated for use by educational and health institutions. The bill would modify the Defense Department's present policy of unwillingness to donate surplus property since this does not allow the department to operate its stock fund "on true commercial and businesslike principles." Witnesses for the Department of Health, Education and Welfare and for state surplus property agencies favored passage of the bill; Department of Defense witnesses suggested that Congress appropriate funds to the H.E.W. Department with which it could purchase surplus property from the Department of Defense stock funds and then donate this property to educational and health institutions.

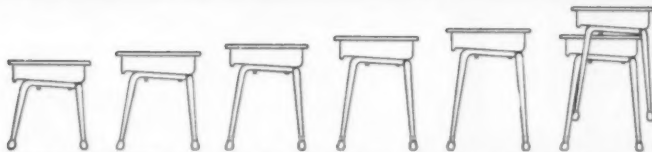
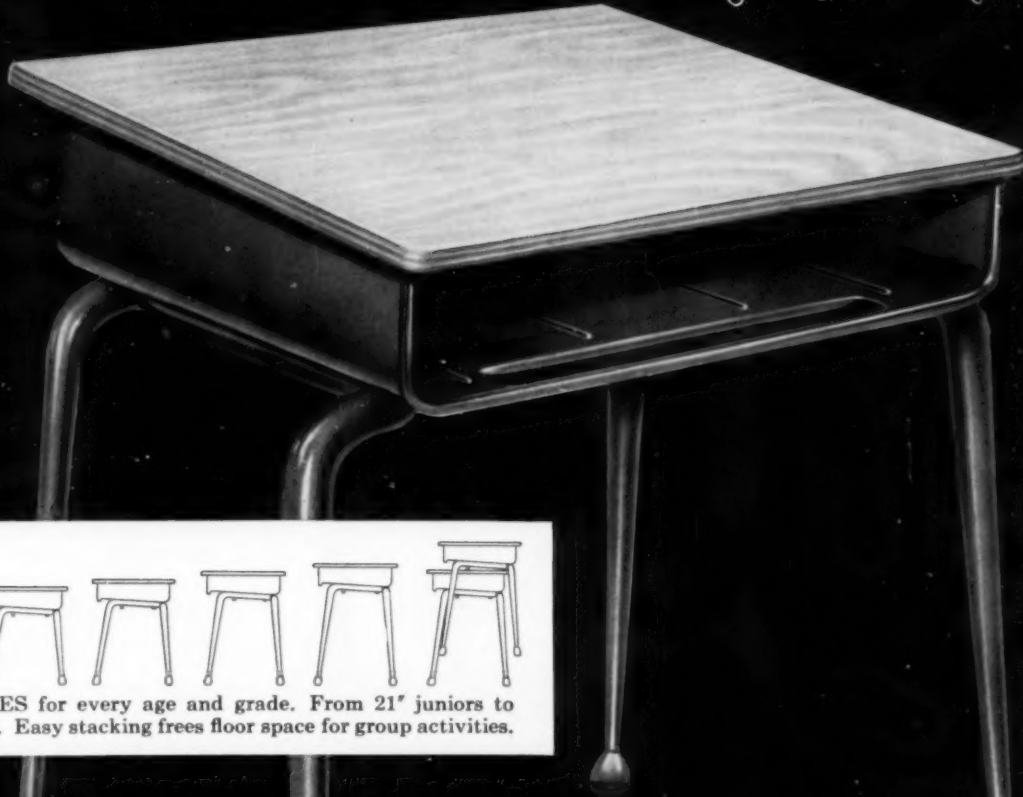
*Educational Use of the Mails.* Senators Johnston of South Carolina and Carlson of Kansas introduced S. 1292 to readjust postal classification on educational and cultural materials. In general, the bill would apply the book rate to sheet music, bound copies of theses, and educational tests whether new or used, and would remove the zoning limitation from the library book rate.

*Tax Credit for Tuition.* Representative Jackson of California recently in-

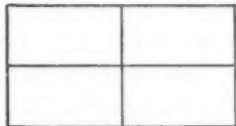




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# NEWS . . . . .

roduced H.R. 4444 which would allow the individual taxpayer a credit of 30 per cent of the payments made by him to a higher educational institution for his own tuition or for the tuition of another person or persons. Bills similar to the Jackson bill are H.R. 3931 (Patterson, R.-Conn.) and H.R. 4568 (Frelinghuysen, R.-N.J.). The bills have been referred to the ways and means committee.

*Reserve Plan and U.M.T.* Subcommittee No. 1 of the House armed

services committee headed by Representative Overton Brooks (D.-La.) has concluded hearings on H.R. 2967, which would put into effect the military reserve plan proposed by President Eisenhower and the Department of Defense. The bill came under fire from veterans' organizations, which questioned whether the plan would provide an adequate supply of trained military manpower; by labor groups which objected to the lengthy reserve obligation backed up by the threat of

"less-than-honorable" discharge, and by religious groups opposed to universal military training. The National Association of Secondary-School Principals (N.E.A.) testified in opposition to the proposal for six months' active service followed by 9½ years' reserve obligation.

Meanwhile, the House has passed and sent to the Senate H.R. 3005 to extend Selective Service for another four years. The bill is now pending before the Senate armed services committee.

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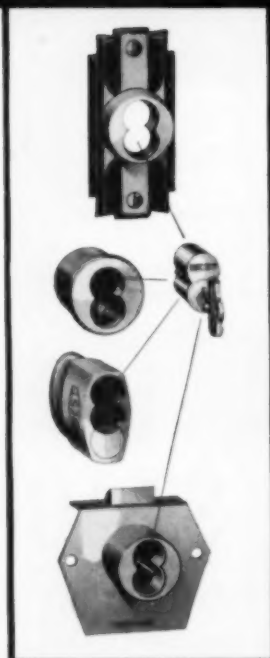
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## Would Control College Funds in Rhode Island

PROVIDENCE, R.I. — Two senators have submitted a bill to the legislature that would put under state budgetary control the financing of the University of Rhode Island and the Rhode Island College of Education. Under this bill, the financing of the institutions would be taken out of the hands of the board of trustees; operating expenditures for the two state schools would be subject to the approval of the state's general treasurer. He would be authorized to assign to the board of trustees the employees he deemed necessary.

One of the co-sponsors of the bill complained that the university was asking for more money each year, especially for capital expenditures, and was now using \$3,500,000 a year of state funds.

## Cornell Announces Increase in Tuition and Fees

ITHACA, N.Y.—Increases in tuition and fees will go into effect at Cornell University with the close of the spring term.

Tuition will be raised \$100 a year in most of Cornell's colleges and schools. This will mean an annual tuition charge of \$1000 at the medical college in New York City and one of \$850 in the colleges and schools of architecture, arts and sciences, engineering, hotel administration and law; the graduate school and the graduate schools of aeronautical engineering, business and public administration, and medical sciences, and the division of unclassified students.

There is no change in tuition schedules of the colleges of agriculture and home economics, the veterinary college, and the schools of industrial and labor relations, nursing and nutrition.

COLLEGE and UNIVERSITY BUSINESS



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## NEWS . . . . .

The action also increases by \$15 a year the "college and university general fee" charged by all schools and colleges on the Ithaca campus.

In most divisions the fee has been \$135. It contributes to the operation of the libraries, the health services, and the student union; pays part of the extra costs of laboratory courses and general administrative services, and supports programs of student activity and recreation.

### National Federation Plans First Meeting

ESTES PARK, COLO.—Plans for the first quinquennial assembly of the National Federation of College and University Business Officers Associations are about complete, declares C. C. DeLong, president of the central association and program chairman for the national assembly.

Assembly delegates will be welcomed to Estes Park on June 27 by

the governor of Colorado, E. C. Johnson. Following his address, two college presidents will discuss the responsibility of the privately and publicly supported institutions in caring for the coming influx of students. Dr. Laurence M. Gould of Carleton College, Northfield, Minn., will treat the subject from the point of view of the small liberal arts college and Dr. O. Meredith Wilson, president of the University of Oregon, will discuss issues from the point of view of the large university.

Monday noon will bring the "Lloyd Morey Luncheon" in recognition of Dr. Morey's long-time service to business administration.

At the afternoon program Nelson E. Wahlstrom, business manager and controller of the University of Washington, will report on the 60 college cost study. Irving Salomon from the Fund for the Advancement of Education will represent the sponsors, and two or three other business officers identified with the study will appear on a panel. W. T. Middlebrook, vice president of the University of Minnesota, and chairman of the Big Ten-California Unit Cost Study, will report on the research conducted by that organization.

Then comes some recreation, followed by a western roundup and chuck wagon picnic supper.

Tuesday morning's session will be devoted to expansion and utilization of physical facilities to meet the coming tide of students, with George Baughman, vice president of the University of Florida, in the chair. Charles Luckman, Los Angeles architect and former president of the Lever Brothers Company in Boston, will discuss the subject from an architectural point of view, and Dr. Donovan Smith of the University of California will direct the thinking of assembly delegates on more efficient utilization of present facilities. Luncheon speaker will be Dr. Arthur S. Adams, president of the American Council on Education.

Tuesday afternoon will be given to the problem of investment and endowment administration with Boardman Bump, treasurer of Mount Holyoke College, and an active member of a Boston investment firm, as the principal speaker. Robert Underhill of the University of California and Parker Hall of the University of Chicago will have an active part in this session.



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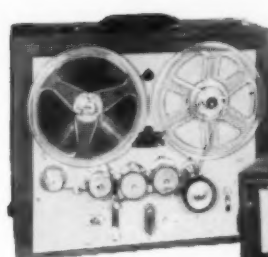
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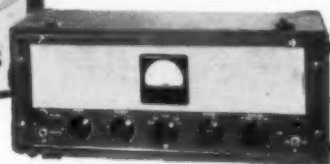
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## NEWS . . . . .

### Michigan Raises Board and Room Rates

ANN ARBOR, MICH.—The regents of the University of Michigan recently authorized a \$50 increase per resident per academic year in the board and room rates in residence halls, effective next September.

This will bring the average board and room rates to \$754 a year. Double rooms will cost \$750 and single rooms \$810.

Comparable rates in 1939-40 were \$382 for a double room for men and \$402 for a double room for women. Under the new rates, the charge for board and room rates for men will be about 96 per cent higher and 86 per cent higher for women than the 1939-40 rates as compared with an increase of 92 per cent in the cost of living.

Approximately \$15 of the increase will be used to meet social security tax and other increase in expense with the remaining \$35 being used to speed

up the retirement of the revenue bonds used to finance construction of the residence halls. An increased rate of retirement of these bonds will be necessary before the university can consider issuing more revenue bonds to finance construction of additional residence halls.

### Tuition Going Up at Western Michigan

KALAMAZOO, MICH. — Western Michigan College will advance its tuition rate for the fall semester. Michigan's other three colleges of education under the state board of education also plan to raise the tuition rate.

According to Dr. Paul V. Sangren, W.M.C. president and chairman of the Michigan Council of State College Presidents, the rate for students residing in Michigan will increase \$20 a semester, and students from other states will pay \$30 more a semester.

This will bring resident tuition to \$90 a semester and the nonresident to \$137.50. Similar increases also are noted in graduate studies and for the 1956 summer session.

### Student Health Clinic Honors Newspaperman

ITHACA, N.Y.—A \$450,000 student health clinic will be built at Cornell University to honor Frank E. Gannett of Rochester, president of the Gannett group of newspapers and a Cornell graduate and trustee. Funds will be provided over a 20 year term by the Gannett Foundation.

Deane W. Malott, president of Cornell, said the project will fill a long-standing need for a permanent clinic building centrally located on the campus. It will go on the site of the clinic's present frame quarters on Central Avenue, next to the student union, Willard Straight Hall.

President Malott noted that Mr. Gannett has long been interested in student health matters and has for 10 years supported a campus "diet table" for Cornellians who have unusual nutritional problems.

Envisioned as a "model clinic," it will embody ideas gained from Cornell's 15 years of clinic operation and from findings of a survey of 1157 college health services which Dr. Norman S. Moore, director of the clinic and infirmary, conducted last year for the American College Health Association.

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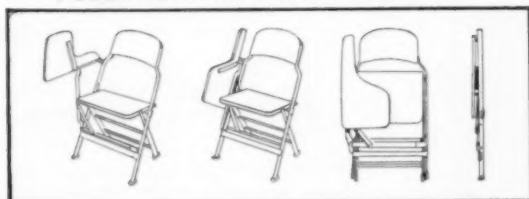
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## NEWS . . . . .

### N.A.E.B. Releases Convention Program

NEW YORK. — A record breaking registration is expected at the annual convention of the National Association of Educational Buyers at the Biltmore Hotel here May 2 to 4, according to Mel Tracht, purchasing agent of Illinois Institute of Technology and conference chairman.

The program will open on Monday with the first session devoted to the annual business officers' conference, Clarence Scheps, controller, Tulane University, presiding. Appearing on the morning program will be Charles Hoff, vice president of the University of Omaha; Elmer Jagow, business manager, Concordia Teachers College, River Forest, Ill., and Robert B. Jenkins, assistant dean, school of commerce, accounts and finance, New York University.

At noon the conference delegates will listen to a welcoming address by Dr. Henry T. Heald, chancellor of New York University, and in the afternoon will hear Clarence A. Smith, purchasing agent, University of Minnesota, (buying construction materials for maintenance) and Dr. Olindo Grossi, dean of architecture, Pratt Institute, (planned campus expansion). In the evening there will be a warm-up party aboard the S.S. Knickerbocker.

At Tuesday morning sessions Jack S. Reaves, director of purchasing, University of Florida, and N.A.E.B. vice president, will preside. Speakers are: John F. Rhilinger, purchasing agent, Dartmouth College, (inventories: purchase and control); Norman Sims, general purchasing agent of fuels, American Cyanamid Company, (buying solid, liquid and gaseous fuels); John Schwegemann Jr., president of the Schwegemann Super Market of New Orleans, (fair trade).

Tuesday afternoon's program will include a display of purchasing forms prepared by M. Gale Morgan, assistant business manager, Valparaiso University, and tours of the city.

Wednesday morning will be devoted to eight workshops from which delegates can choose. Directing them will be Carl C. Storey, business manager, Queens College, Charlotte, N.C., (small college problems clinic); Frank Powell, purchasing agent, Alabama Polytechnic Institute, (laboratory sup-



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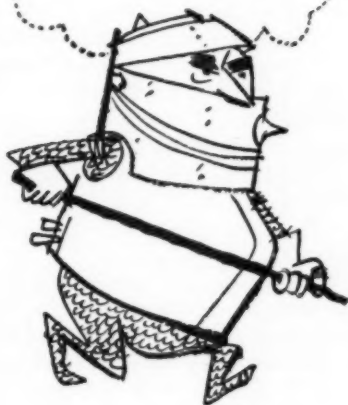
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## NEWS . . . . .

plies and equipment); C. P. Dunbar, director of the division of institutional services, and R. W. Flatt, auditor, University of Louisville, (vending machines); J. Fred Knight, purchasing agent, University of Illinois, Chicago Colleges and Divisions, (contracting for service); Thomas A. Dodds, purchasing agent, University of Wyoming, (making the purchasing department manual); Leonard J. Rogge, purchasing agent, College of St. Thomas, (central duplicating); George Toberman, purchasing agent, St. Louis University, (receiving and inspection); George W. Warren, director of purchases and supplies, University of Maryland, (surplus property).

Wednesday afternoon will be devoted to a "Get It Off Your Chest" program directed by Bert C. Ahrens, executive secretary, N.A.E.B., and a business session conducted by Henry L. Doten, the president. The E.&I. Cooperative Service will have its annual business session, presided over by Henry B. Abbett, president of the service, and director of procurement and service enterprises, Purdue University.

At the annual banquet the entertainment will be by the Columbia University Glee Club under the direction of J. Bailey Harvey, and a speaker, as yet unannounced.

### Union College Tuition Boosted \$100 a Year

SCHENECTADY, N.Y.—In an effort to meet rising costs of operation and specifically to provide salary increases for the faculty, the board of trustees of Union College has voted a flat \$100 per year tuition increase for members of the incoming freshman class. In addition, according to President Carter Davidson, students of all classes will be required to pay a newly established incidental fee of \$50 per year.

The effect of the new increases will be to raise yearly rates for the present student body at Union from \$700 to \$750 for liberal arts majors and from \$800 to \$850 for engineers. Members of the class of 1959 and future classes will pay \$850 and \$950 respectively. Engineering rates at the college are of necessity higher, since students majoring in these fields carry approximately 20 per cent more credit hours of course work.



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## NEWS . . . . .

### Michigan Plans Institute on College Administration

ANN ARBOR, MICH.—An Institute on College Administration will be held at the University of Michigan from July 11 to 15 inclusive. Problems in the administration of the curriculum, personnel and finance will be discussed by resource leaders; also an opportunity will be provided for enrollees to study problems or topics of special interest to them. The institute

will be preceded by a three-week workshop for college professors, June 20 to July 8.

The director of the institute will be Algo D. Henderson, professor of higher education; the assistant director will be James M. Davis, director of the International Center.

Other staff members will include: John E. Milholland, assistant director of the college professors' workshop; John D. Millett, president, Miami University, and formerly executive direc-

tor, Commission on Financing Higher Education; Harry K. Newburn, director, Educational Television and Radio Center; Richard M. Paget of Cresap, McCormick and Paget, management consultants, New York City; Wilbur K. Pierpont, vice president, University of Michigan; Robert L. Williams, assistant dean of faculties, University of Michigan; K. Brent Woodruff, associate to the president, Antioch College, and formerly senior associate, Raymond Rich and Associates.



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### College Heads Hear Work, Products Criticized

CHICAGO.—The tenth annual conference of the Association of Higher Education of the National Education Association, held here in March, drew 780 delegates from 47 states. In conference sessions they were sharply criticized for their failure to produce more effective educational institutions.

Dr. Henry David, executive secretary of the national manpower council at Columbia University, charged: "Many institutions of higher education discourage critical thought and reflection in both students and faculties. Too many of them respond so readily to the demands made upon them by society that they tend to operate as educational service stations rather than as educational institutions."

Dr. Buell G. Gallagher, president of City College of New York, in his address on "The Meaning and Mission of Higher Education" made a strong plea for the need for frequent inquiry and intellectual adventuring. "The search for values, and the stout defense of values which are proved—these are inherent and basic to any education worthy of the efforts of free men," he declared.

Dorothy Fosdick, former member of the State Department's policy planning staff, sharply criticized the educators for the failure of colleges and universities to train students in proper understanding of world affairs. She suggested that it might be good procedure to confront students while they are on campus with the fateful problems facing this nation in its relation with other countries and to get from such students their best thinking as to proper solutions to the world's problems.

Senator J. W. Fulbright of Arkansas spoke at the concluding session of the





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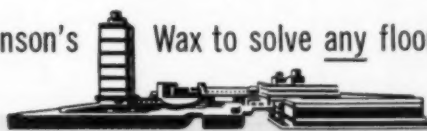
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## NEWS . . . . .

conference and urged the association to provide an education that would train students to take their proper place as citizens of the country in which they live.

### Syracuse to Give Eighth Fund Raising Workshop

SYRACUSE, N.Y.—The school of education of Syracuse University will offer a two-week workshop in fund raising at its Chautauqua Center, Chautauqua, N.Y., during the summer session, which will run from July 11 through July 22.

The workshop is especially designed for college and university administrators who are directly or indirectly concerned in the development of college and university resources. The course will cover the various policies and technics involved in capital gifts campaigns, alumni funds, bequest programs, and long-term development. It is a noncredit course.

The workshop will be directed by Bernard P. Taylor, executive director of the Penn State Foundation of the Pennsylvania State University. He will be assisted by professional consultants in fund raising and printing. This will be the eighth year that the workshop has been conducted. During this period more than 120 colleges and universities have been represented by their presidents, fund directors, alumni secretaries, or other public relations officials.

### Coordinate Men's College Planned by Rockford

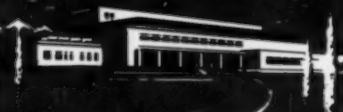
ROCKFORD, ILL.—Rockford College will establish a coordinate college for men starting in September, it has been announced by the four-year liberal arts college for women.

The men's college will be given a separate name and eventually will be housed in separate buildings. The same faculty will teach both Rockford College students and those at the new men's college, according to Karl Williams, chairman of the board of trustees.

Announcement of the new college was made at the time of the installation of Dr. Leland H. Carlson as president, succeeding Dr. Mary Ashby Cheek.

Rockford has the distinction of being the oldest four-year college for women in the Middle West.

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To make them completely fire-proof, Westbrook Junior College, Portland, Maine, installed Grinnell Sprinklers in many of its older buildings. The work was done so efficiently, and with such minor interruption to normal campus life, that Grinnell Sprinklers were again specified when a new building was planned in 1951.

Of interest to everyone concerned with smart, modern interiors is the functional way in which the new Grinnell System was handled. Where rooms had to appear particularly attractive and uncluttered, such as the library, Grinnell flush-type Ceiling Sprinklers—extending only a scant inch below the ceiling — were used. But where emphasis could be somewhat less on looks, regular Grinnell Sprinklers served. Either type, of course, is equally effective in quenching fire—quickly, automatically—at its source.

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# NEWS . . . . .

## Harvard Receives Funds for Radio Telescope

CAMBRIDGE, MASS.—The National Science Foundation has given \$132,000 to Harvard University to build a 60 foot radio telescope. It will be used to explore the universe of radio astronomy and will supplement the work of a 24 foot radio telescope that has been operating since 1953.

Although the universe of radio astronomy exists side by side with the

stars, this universe is invisible to human eyes. It is identified only by crackling noises from outer space.

Radio astronomy is based on detecting and analyzing signals sent out by cosmic gases and stars. Sometimes the sources of these signals can be matched with visible stars or nebulae. More frequently they can be traced only by radio.

The new telescope will be situated at the George R. Agassiz station of the Harvard Observatory.

## Criticizes Public's Interest in Facilities Rather Than Faculty

NEW YORK. — Top intellectual achievement is not sufficiently a premium issue in American education today, Dr. Courtney Smith, president of Swarthmore College, stated in an address before the 15th annual luncheon forum on education of Tuition Plan.

There is too much "education by façade" in which parents and prospective students have been giving more consideration to "expensive laboratories and gleaming equipment" than to stocking them with first-rate scientists, Dr. Smith commented.

Dr. Smith asserted: "There is no overriding reason why a college should not have as handsome and comfortable dormitories as it can afford, but if an institution lets the public think the ratio of students to clothes closets is as important as the ratio of students to teachers, or if an institution sets up the students in luxury while the faculty are underpaid and live like peasants, it will cloud the public's understanding of true values."

In his address Dr. Smith also referred to the responsibility of colleges "to speak out against outside control through investigations, oaths and intellectual bullying" and "against the growing notion that, although there may still be two sides to every question, only one is entirely respectable."

## Methodists Plan College for Alaska

ANCHORAGE, ALASKA.—Alaska may have its first church related four-year liberal arts college following a fund raising campaign to be conducted in more than 40,000 Methodist churches in the States. Anchorage residents already have pledged the sum of \$209,000 toward a goal of \$500,000.

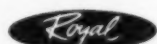
Methodist leaders hope to provide \$4,500,000 to supplement the Alaskan goal; that is the amount needed for the initial outlay for construction, it is reported. Long-range plans call for a \$10,000,000 expenditure.

Anchorage was selected as the site of the college inasmuch as 67 per cent of the population of Alaska lives within a 300 mile radius of the city. The proposed liberal arts college hopes to retain Alaskan youth in Alaska.



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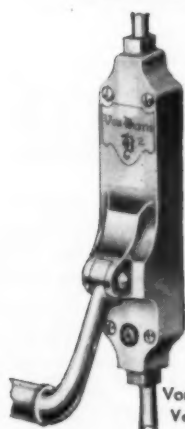
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## NEWS

### Delaware Gets Huge Sum for Engineering Building

NEWARK, DEL. — An unexpected contribution of \$1,350,000 to the building fund of the University of Delaware has reduced by a full million a request to the state legislature for capital expenditures for the next biennium.

University officials had asked for a million to construct an addition to the engineering building, but the gift

from an anonymous foundation has been made specifically for construction of a new engineering building.

Although the name of the foundation was not announced, a special meeting of the executive committee of the board of trustees accepted the gift "most gratefully" and voted to name the structure for the late Pierre S. DuPont.

In space designed to accommodate 250 engineering students, the univer-

sity has been training 478 undergraduates and 207 graduate students.

"The university currently is operating with about half the instructional space per student generally thought to be necessary for good engineering education," President John A. Perkins declared in announcing the gift. "Expanding research projects in engineering also require more space and facilities than are available at the present time.

"It is this type of generous private benefaction coupled with state support that has brought our university to its growing position of eminence. Gifts of this sort are in no way intended to relieve the people of the state of their reasonable financial obligation to support their university. While we are no longer compelled to seek state funds for engineering facilities, the legislature obviously should find it easier to appropriate the amounts requested to meet salary and residence hall needs."

### Public Relations Group Plans Chicago Meeting

CHICAGO. — More than 800 public relations executives will meet in Chicago June 29 through July 2 to discuss ways to improve the public relations programs of the nation's colleges and universities.

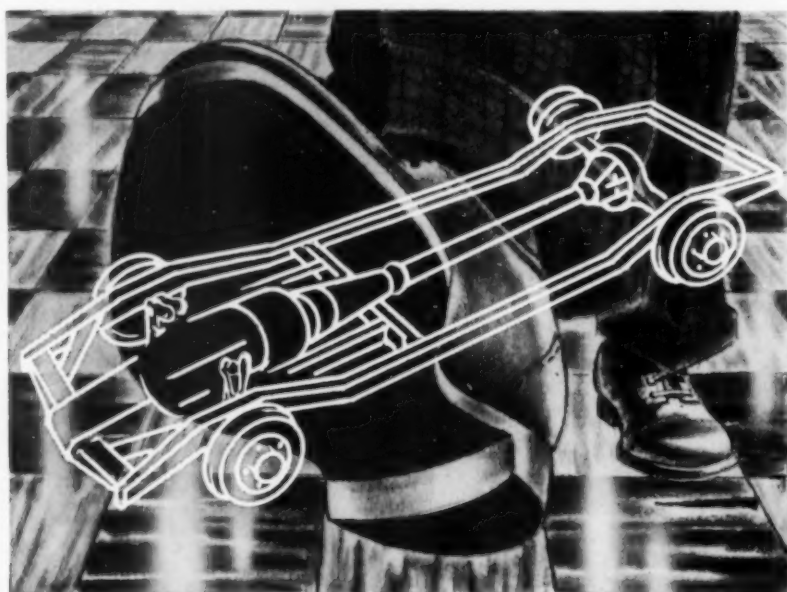
They are members of the American College Public Relations Association, which will hold its annual convention at the Drake hotel.

News dissemination, radio and television programs, relations with business and industry, and fund raising are a few of the topics to be spotlighted during six general sessions and seven special-interest seminar sessions.

"Institutions of higher education are devoting increased attention to the subject of public relations," pointed out the convention chairman, Stewart S. Howe, vice president of Illinois Institute of Technology.

The diversified convention program illustrates how the nature of college public relations has changed since the days when it was concerned only with publicity, Mr. Howe declared.

Among the other convention highlights will be the presentation of awards for distinguished service to education and for outstanding achievement in the college public relations field.



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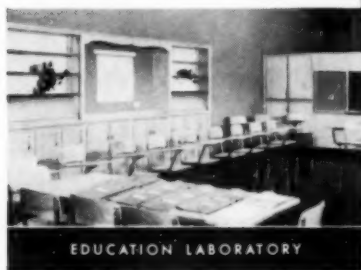
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TOM DEWEY & COMPANY—Honolulu, Hawaii; Hawaiian Islands

## NAMES



D. Francis Finn

D. Francis Finn, former purchasing agent of Brown University, Providence, R.I., became purchasing agent of Purdue University, Lafayette, Ind., on April 1. Mr. Finn, procurement official at Brown since 1948, has been serving as vice chairman of the New England group of the N.A.E.B.

Carroll V. Newsom, associate commissioner for higher and professional education of the state of New York, has been named executive vice chancellor of New York University. Dr. Newsom will fill the position to be vacated next summer by David Dodds Henry, when he assumes the presidency of the Uni-



C. V. Newsom

versity of Illinois. Dr. Henry has been executive vice chancellor since September 1952.

Frances McClelland Mayfarth, professor of education at New York University, has been appointed president of Wheelock College, Boston. Dr. Mayfarth will take office July 1 on the retirement of Winifred E. Bain, who has been president for the last 15 years.

Robert L. H. Davidson, associate dean of Temple University's Community College, has been elected president of Westminster College, Fulton, Mo. Dr. Davidson will begin his new duties late this spring and will succeed Dr. William W. Hall, who resigned recently to accept the presidency of Franklin and Marshall College, Lancaster, Pa.

Robert W. Feyerharm, for the last four years assistant treasurer of Carleton College, Northfield, Minn., is occupying since April 1 the new post of



R. W. Feyerharm



Frank I. Wright

vice president for financial operations at Simpson College, Indianola, Iowa. Frank I. Wright, a sales representative for a paper company and a 1950 alumnus of Carleton, has been named to succeed Mr. Feyerharm.

Walter C. Langsam, president of Gettysburg College, Gettysburg, Pa., has been chosen president of the University of Cincinnati to succeed Dr. Raymond Walters, who is retiring after 23 years' service. Dr. Langsam's appointment becomes effective September 1.



Walter C. Langsam

Herbert E. Longenecker, dean of the graduate school at the University of Pittsburgh, has been appointed vice president of the University of Illinois in charge of the Chicago professional colleges. Dean Longenecker will assume his new duties in the fall.

Maj. Gen. George E. Armstrong, surgeon general of the army, has been named vice chancellor for medical affairs at New York University.

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## NAMES .....

**Julius Wayne Reitz**, provost of agriculture at the University of Florida, was nominated recently by the state board of control to be president of the University of Florida. The nomination must be approved by the state cabinet. **Dr. Reitz** will fill a vacancy created by the death of **Dr. J. Hillis Miller**.

**Kenneth G. Fleming**, former assistant supervisor of custodians for the board of education in New York City, has been named custodian-engineer at

City College, New York. He succeeds **Robert Petross**, retiring after 12 years with the college.

**Rev. Alfred F. Mendez, C.S.C.**, has been named director of Notre Dame's placement bureau. He succeeds the late **William R. Dooley**, who had handled job placement of Notre Dame seniors from 1950 until his death.

**Frederick O. Pinkham**, executive director of the National Commission on Accrediting in Washington, D.C., has

been appointed president of Ripon College, Ripon, Wis. He succeeds **Dr. Clark G. Kuebler**, who resigned to accept appointment as provost of Santa Barbara College of the University of California.



R. C. Magrath

**Raymond C. Magrath**, treasurer of the University of New Hampshire since 1927, has been appointed to the newly created post of controller and business officer of Tufts College Medford, Mass. Mr. Magrath goes to Tufts in June.

**Charles W. Hoff**, vice president of the University of Omaha, was selected as "boss of the year" by the Omaha branch of the National Secretarial Association. His secretary is **Beth Christensen**.

**Floyd Skelton**, formerly assistant manager of the Henning Hotel, Casper, Wyo., and a graduate of the University of Denver School of Hotel and Restaurant



Floyd Skelton

Management, has been appointed assistant director of food service at the University of Wyoming. Mr. Skelton succeeds **Allen H. Bennett**, who has gone into private business.

**Rev. Paul A. McNally, S.J.**, vice president of Georgetown University, Washington, D.C., died from a heart attack on March 4 at his residence on the Georgetown campus. Father McNally was 65.

**The Right Rev. Bernard H. Pennings**, founder of St. Norbert College, West De Pere, Wis., died recently after a short illness. He was 93 years of age.

**Paul L. Garrett**, 65, president of Western Kentucky State College, Bowling Green, Ky., died recently.

**Trevor Arnett**, an authority on college finance and author of the first major work on the subject, died on March 31. He was former vice president of the University of Chicago and a member of the Rockefeller Foundation until his retirement in 1936.

**D. R. Youell**, 45, president of Hiwassee College, Madisonville, Tenn., died as the result of an accidental discharge of a shotgun on March 11.



## METAL is Magic

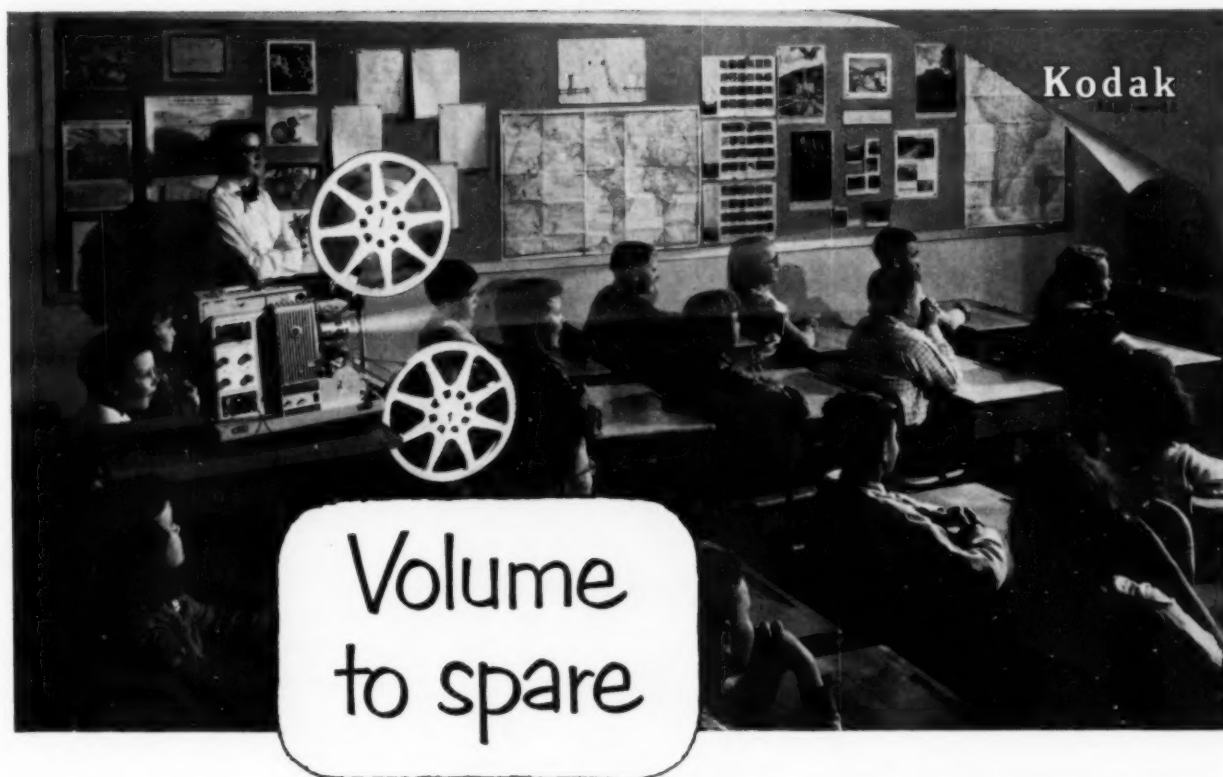
Turk metal furniture is permanent furniture with built in beauty and style.

The dramatic appearance of the room pictured above endures because metal *is* magic... it's fireproof, stainproof and simple to clean. Natural wood finishes and attractive color combinations offer that unlimited freedom in decorating *obtainable only in metal*. Repair or replacement is low cost, thanks to Turk sectional construction!

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**JOS. TURK MANUFACTURING CO.,** Bradley, Illinois — Phone 3-4461  
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It's *extra* sound-output that makes this remarkable projector one of the biggest buys in 16mm. sound projection. For the Kodascope Pageant Sound Projector, Model AV-152-S, develops 15 watts of clear, undistorted power. Yet its modest \$455 price is considerably *less* than most 10-watt projectors and only \$30 more than the standard 7-watt Pageant models.

But what does all this extra power mean to you... why do you need it? One very good reason is that a movie projector—like your car or any other machine—delivers its finest, smoothest performance when operating at less than full capacity. That's why this Pageant's *reserve* power is valuable even when you're operating the machine at very low volume levels. It means higher fidelity without distortion... and less background noise because of the low hum level.

Greater *versatility* is another reward of extra power. The Pageant Model AV-152-S

has all the output you need for showings in large auditoriums and hard-to-hear-in rooms—even outdoor assemblies. (And its compact, single-case portability enhances its versatility.)

What's more, this Pageant model has separate bass and treble controls that let you compensate for "boominess" or "deadness" in rooms with poor acoustics. And, as in all Pageant models, a unique Fidelity Control is built in. This makes possible precise focusing of the scanning beam, regardless of sound-track position.

#### Super brilliant

This single-case, 15-watt Pageant model comes in two versions: a sound-and-silent projector designated Model AV-152-S... and the sound-only Model AV-152-SE. The latter machine is equipped with Kodak's remarkable Plus-40 Shutter, which delivers more than 40% extra illumination to pro-

vide super-brilliant pictures even under adverse lighting conditions.

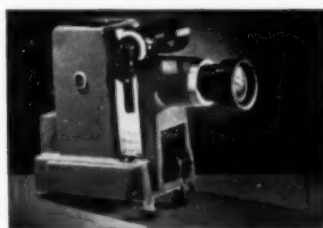
#### Other Pageant features

There are, in all, six Pageant models. Each is specially tailored to meet specific projection requirements. Yet, they *all* have many outstanding advantages.

Only Pageants, for example, are *permanently pre-lubricated* to by-pass the danger of under- or over-oiling, the major cause of projector breakdowns. A built-in field-sharpening element makes possible super-sharp pictures over the entire screen area. And their operation is always quiet as a whisper.

Ask your Kodak Audio-Visual Dealer for a free demonstration of these remarkable Pageant features. Or mail the coupon for your free copy of a new color catalog on the complete Pageant line.

*Prices subject to change without notice.*



#### new Kodaslide SIGNET 500 Projector, Filmstrip Model

It's completely new! And it has the smoothest, surest, fastest film-advance ever designed!

For brighter, sharper pictures, it has the Kodak Ektanon Projection Lens (f/3.5 or f/2.8), 500-watt lamp, Luminized lens-and-condenser system, and aluminized glass reflector. Shows 2 x 2 slides as well as filmstrips. Only \$98, with f/3.5 lens.

#### WHAT A-V EXPERTS SAY ABOUT PAGEANT PRE-LUBRICATION

"Pre-lubrication of the Pageant assures a maximum of trouble-free service with a minimum of maintenance. This can certainly reduce your yearly maintenance cost. Top-quality sound plus excellent picture performance and quietness in operation makes the Pageant ideal for training—in industry, church, and school."



Robert L. Edwards, Texas Educational Aids, Dallas, Texas

"We know of Pageant Projectors in schools in our area that have been running for three years and more with only a periodic checkup. Permanent pre-lubrication eliminates all the repairs necessitated by too much or too little oil. Pre-lubrication, with all the other features, makes Pageants 'tops in our book.'"



R. H. Serber, Triple S Camera Shop Ukiah, California

#### EASTMAN KODAK COMPANY, Dept. 8-V, Rochester 4, N. Y.

4-9

Send name of nearest Kodak Audio-Visual Dealer and information on:

- ☐ Kodascope Pageant Sound Projectors  
☐ Kodaslide Signet 500 Projector, Filmstrip Model

NAME \_\_\_\_\_ TITLE \_\_\_\_\_  
ORGANIZATION \_\_\_\_\_  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_  
(Zone)

## DIRECTORY OF ASSOCIATIONS

### National Association of Physical Plant Administrators of Universities and Colleges

President: Wesley Hertenstein, California Institute of Technology; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Convention: July 11-13, University of Wyoming, Laramie.

### National Association of College and University Housing Officers

President: M. R. Shaw, Cornell University; vice president: F. C. McConnell, University

of Texas; secretary-treasurer: Ruth N. Donnelly, University of California, Berkeley.

Convention: July 31-Aug. 4, Iowa State College, Ames.

### National Federation of College and University Business Officers Associations

President: Irwin K. French, Wellesley College; vice president: Laurence Lunden, University of Minnesota; secretary-treasurer: Nelson A. Wahlstrom, University of Washington.

Convention: June 26-28, Stanley Hotel, Estes Park, Colo.

### Associations of College and University Business Officers

#### American Association

President: W. C. Ervin, Paine College; secretary: B. A. Little, Southern University.

#### Central Association

President: C. C. DeLong, University of Illinois; secretary-treasurer: T. N. McClure, Knox College.

#### Eastern Association

President: W. R. Hendershot, New York University; secretary-treasurer: Irwin K. French, Wellesley College.

#### Southern Association

President: C. O. Emmerich, Emory University; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

#### Western Association

President: James Miller, University of California; secretary: Morris Robertson, Oregon State College.

### Canadian Association of University Business Officers

President: A. G. Rankin, University of Toronto; secretary-treasurer: E. A. Wilkinson, Hart House, University of Toronto.

Convention: June 16-18, Ottawa, Ont.

### Association of College Unions

President: William Rion, University of Florida; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

### College and University Personnel Association

President: L. H. Glander, Michigan State College; secretary-treasurer: M. S. Hendrickson Jr., University of Colorado; executive secretary: Donald E. Dickason, University of Illinois. Permanent headquarters, 809 S. Wright St., Champaign, Ill.

Convention: July 17-20, State University of Iowa, Iowa City.

### National Association of Educational Buyers

President: Henry Doten, University of Maine; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 2-4, Biltmore Hotel, New York City.

### American College Public Relations Association

President: Francis C. Pray, University of Pittsburgh; executive secretary: Marvin W. Topping, 726 Jackson Place, N.W., Washington 6, D.C.

Convention: June 30-July 2, Drake Hotel, Chicago.

### National Association of College Stores

President: Carl Birdwell, A&M College of Texas, College Station; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

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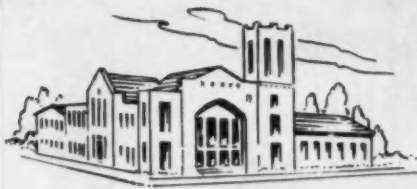
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**Assistant to Top Executive**—Age 34; B.A., M.P.A., excellent general administrative training and experience related to higher education, seeks challenging position. Write Box CW-244, COLLEGE AND UNIVERSITY BUSINESS.

**Buildings and Grounds Cleaning—Maintenance Consultant**—Available for 30 day assignments; an "on the job" survey and analysis of the college building services problems to determine your requirements and standards; assist toward the solution of these problems by the introduction of planned work schedules, modern time and money saving techniques and to develop efficient supervisory personnel; impeccable business and college references. Write Box CW-247, COLLEGE AND UNIVERSITY BUSINESS.

**Building and Grounds Director**—Experienced in operation of college and other large properties; middle-aged, engineering background; professional degree and licences. Write Box CW-242, COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager**—Vanderbilt graduate 20 years' experience retail and wholesale businesses and college management desires administrative position private education, preferably East; age 39, family two children; present salary \$6000-\$7000. Write Box CW-253, COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager, Assistant Treasurer or Controller**—Experienced; proven ability in budgets, accounting, financial reports, purchasing, supervision maintenance, insurance, dining hall, bookstore; desires change with possibilities for advancement; age 31, married, two children; B.S. and M.B.A. degrees. Write Box CW-248, COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager or Controller**—Fifteen years experience as university administrator in charge of business operations; thirteen years in private business; special competence in accounting, fiscal reporting, endowment administration, purchasing and auxiliary enterprise operation; married, three children; doing graduate work on M.B.A. in higher education administration; presently employed in university. Write Box CW 251, COLLEGE AND UNIVERSITY BUSINESS.

**College Architect—Superintendent of Buildings**—B.S. in Civil Engineering; registered architect; skilled in building trades; experienced in institutional construction and maintenance; presently engaged as construction superintendent commercial work; prefer position independent liberal arts school. Write Box CW-240, COLLEGE AND UNIVERSITY BUSINESS.

**College Bookstore Manager**—Position as, or leading to; mature college graduate; 3½ years experience in all phases of bookstore operation with large eastern university; qualified to put store in operation. Write Box CW-250, COLLEGE AND UNIVERSITY BUSINESS.

**College Superintendent Buildings and Grounds**—Desires change; college graduate; twelve years experience superintendent buildings and grounds and heating maintenance in small colleges. Write Box CW-246, COLLEGE AND UNIVERSITY BUSINESS.

**Comptroller—Business Officer**—Of small liberal arts college, with experience in general management of business office, physical plant, dormitories, and dining hall, desires to relocate in position having similar or a portion of such responsibilities. Write Box CW-236, COLLEGE AND UNIVERSITY BUSINESS.

**Controller or Accountant**—Presently employed, fifteen years experience private school and college accounting and management, twelve years other budget accounting, desires eastern liberal arts college; M.A., married, no children. Write Box CW-238, COLLEGE AND UNIVERSITY BUSINESS.

**Dietitian and Director of Recreation**—Husband and wife, college graduates with seven years experience wish employment together; can furnish excellent references. Write Box CW-243, COLLEGE AND UNIVERSITY BUSINESS.

**Director—Residence**—Experienced in college dormitory management; purchasing, organization, personnel; budgeting. B.S. degree; eastern location preferred; excellent references; available September. Write Box CW-235, COLLEGE AND UNIVERSITY BUSINESS.

**Personnel—Placement Officer**—Age 33, veteran; 3 years government personnel work; 1 year university experience in placement and admissions counseling; desire to locate in west. Write Box CW-252, COLLEGE AND UNIVERSITY BUSINESS.

**Superintendent—Buildings and Grounds**—Engineering college graduate; past nine years as superintendent in midwest college plus twenty years experience in maintenance, construction, planning and supervision; desire permanent location California or Arizona. Write Box CW-249, COLLEGE AND UNIVERSITY BUSINESS.

**University Comptroller**—M.B.A. accounting, finance; nine years progressive experience all phases financial operations; desires position with larger university; married, family. Write Box CW-245 COLLEGE AND UNIVERSITY BUSINESS.

## POSITIONS OPEN

**Architect**—Young registered graduate, for permanent position with large midwest university; experienced in design and construction of buildings. Write Box CO-165 COLLEGE AND UNIVERSITY BUSINESS.

**Assistant Superintendent of Buildings and Grounds**—In co-educational college in New England with large campus to expedite work and supervise tradesmen, janitors, grounds-men; state age, experience, education, salary requirement. Write Box CO-168 COLLEGE AND UNIVERSITY BUSINESS.

**Assistant Supervising Custodian**—Position description upon request; working supervisor with five or more years experience supervising floor maintenance, sanitation and general custodial work; college education preferred; in own handwriting, state working experience for last ten years, education training and special skills as well as minimum salary desired; state age and enclose photo. Write to Supervising Custodian, P.O. Box 4188, Tech Station, TEXAS TECHNOLOGICAL COLLEGE, Lubbock, Texas.

**Bursar or Chief Accountant**—Small mid-western college; young man under 30 with some training in accounting; give full details of training, experience and salary desired in first letter. Write Box CO-163, COLLEGE AND UNIVERSITY BUSINESS.

**Business Officer**—Position leading to duties of comptroller open to young man experienced in accounting, budgets, etc., preferably in college or university. Write Treasurer's Office, WILLIAMS COLLEGE, Williamstown, Mass.

**Custodian Supervisor**—Man to be in charge of all phases of housekeeping and sanitation; must have a good knowledge of floor construction and maintenance; experience in scheduling and inspecting of cleaning operations essential; give past experience and salary desired. Write to Supt. of Buildings and Grounds, THE UNIVERSITY OF ROCHESTER 3, New York.

**Dietitian**—Middle Atlantic college for women, approximately 600 resident students, year-round position, suburban locality; two kitchens and a snack shop. Write Box CO-166, COLLEGE AND UNIVERSITY BUSINESS.

**Director of Food Service**—New England co-educational college with year-round program has interesting and challenging opening for well-qualified man to assume full responsibility for entire food service operation. Write Box CO-157, COLLEGE AND UNIVERSITY BUSINESS.

**Director of Housing**—Man wanted to take complete charge of business management of residence halls; will supervise all operations except counseling, discipline and social program; state education, experience, salary needed. Address Claude E. Puffer, Treasurer, UNIVERSITY OF BUFFALO, Buffalo 14, New York.

**Superintendent of Buildings and Grounds**—Private liberal arts college located in New England; applicant should have qualifying experience and demonstrated administrative ability. Write Box CO-164, COLLEGE AND UNIVERSITY BUSINESS.

**Superintendent of Buildings and Grounds**—Age 35-50 preferred; good training and practical experience in maintenance of mechanical equipment, including air conditioning and refrigeration, and all phases of physical plant programs; large, private, well established, non-academic vacation recreation center, Westchester County, New York; year round operation; beautiful surroundings; resumé of experience, education, photograph, date of availability and other pertinent data desired. Write Box CO-167, COLLEGE AND UNIVERSITY BUSINESS.

**Supervisor of Housekeeping**—In men's and/or women's dormitories; please address resumé of experience giving age, availability, salary desired and other pertinent data to Business Manager, MIDDLEBURY COLLEGE, Middlebury, Vermont.

The rates for classified advertisements are: 20 cents a word; minimum charge, \$4. (No charge for "key" number.)

Forms close 25th of month preceding date of issue.

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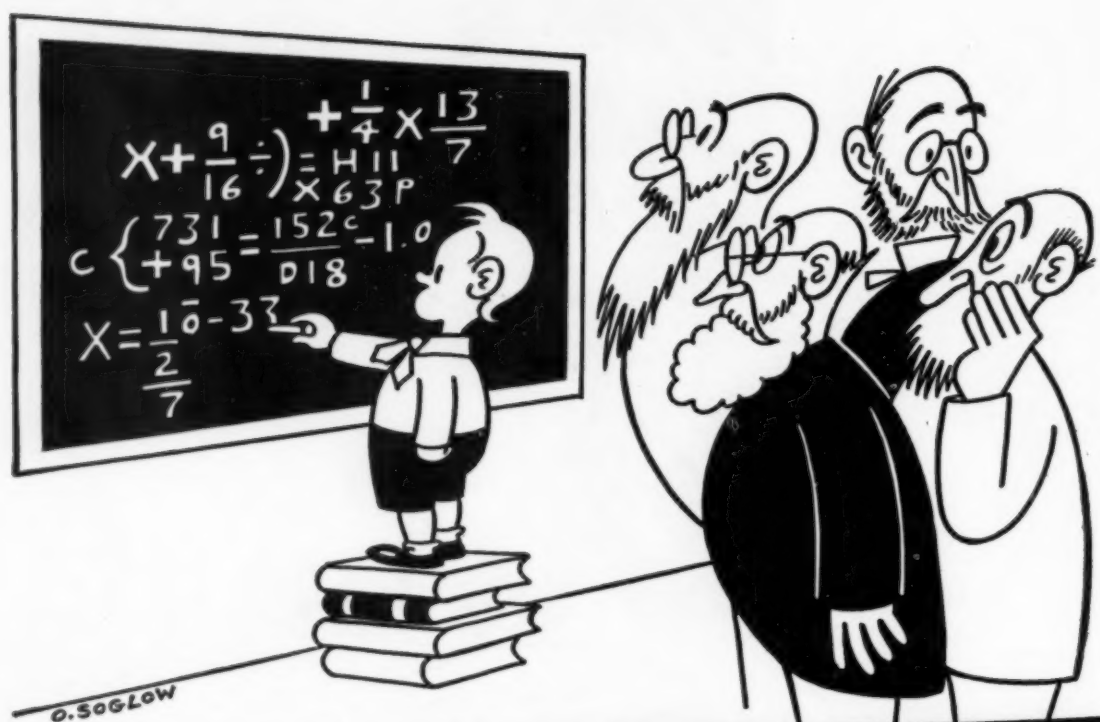
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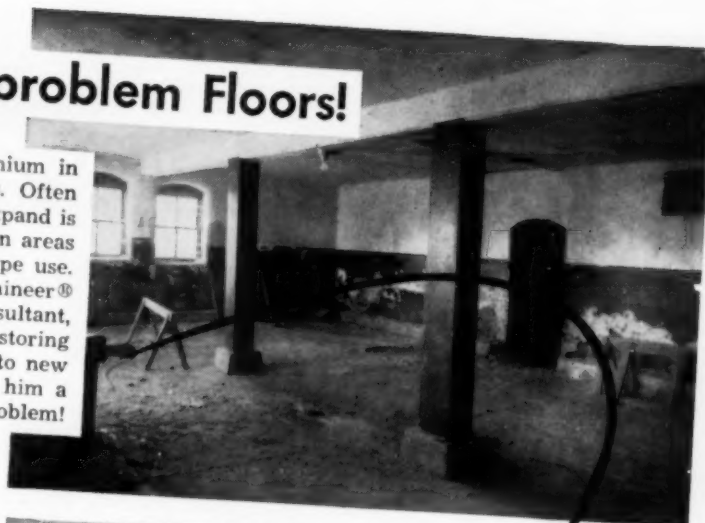
**COLLEGE & UNIVERSITY BUSINESS**



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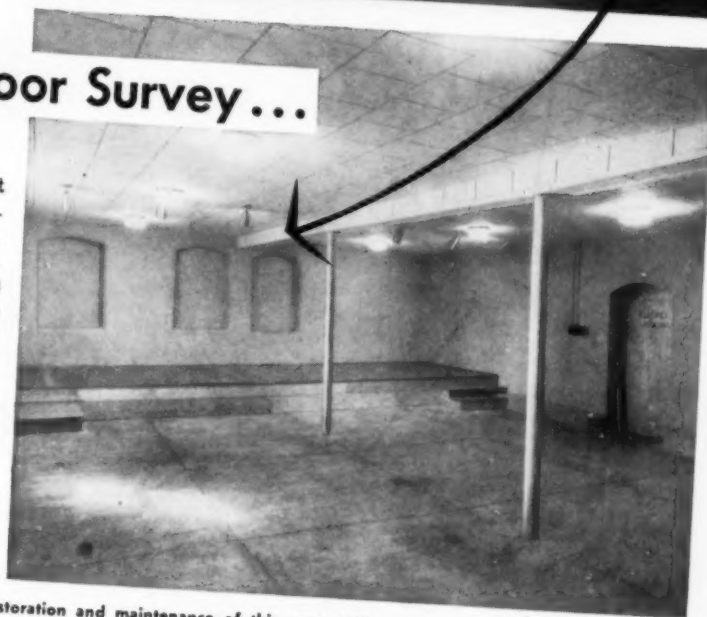
Floor space is at a premium in today's crowded buildings. Often the only practical way to expand is by restoring run-down areas to use, or to a higher type use. Your nearby Hillyard Maintaineer® is an expert floor consultant, experienced in the art of restoring even "hopeless" floors to new beauty and utility. Give him a chance at your worst floor problem!



## • a Hillyard Floor Survey ...

takes into consideration:

- the kind of floor — wood, resilient tile, cement or terrazzo....
- the floor's location, and what is next to it ....
- the floor's condition ....
- the kind and amount of traffic it carries
- .....your standards for appearance — for cleanliness — for safety



A Hillyard Maintaineer planned the restoration and maintenance of this cement floor — and now an unused basement room is a popular recreation area.

## • a Hillyard Floor Survey can show you how to:

Give your floor tailor-made treatment, make it look better than you ever dreamed it could! Prolong its life by many years. If you are renovating, don't tear out old floors till you've talked to your Hillyard Maintaineer!

Reduce frequency of treatment, save you many dollars in material and labor costs! No charge, no obligation for this Hillyard service.

Visit Hillyard booth No. 10, Association of College Unions, Greenbrier Hotel, White Sulphur Springs, W. Va., April 3-6.

*Mail this Coupon Today!*



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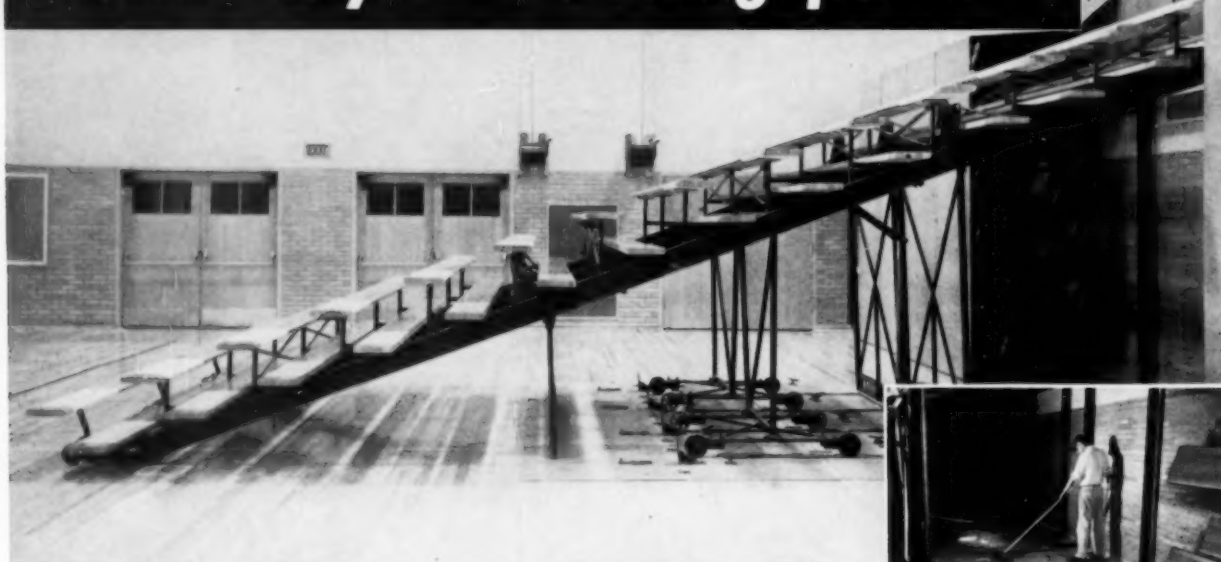
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I'm going to take you up on your offer. Without charge or obligation, have a Hillyard Maintaineer come to look at my floor problem.

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Institution.....  
Address.....  
City..... State.....

**With only 25 moving parts...**



## **AMWELD® EASI-FOLD** **is a SAFER bleacher!**

You can make your next school job absolutely safe with Amweld Easi-Fold Bleachers. A triumph of engineering skill, these folding bleachers cannot collapse. Open supports are braced and locked — cannot fold in use. Special design eliminates danger of pinched fingers or legs.



### **SEND FOR INFORMATION**

Amweld Easi-Fold Bleachers are ideal for all indoor spectator seating. Write for details today or see our catalog in Sweets' Architectural File No. 22.

**INSTITUTIONAL PRODUCTS DIVISION**  
**THE AMERICAN WELDING**  
**AND MANUFACTURING COMPANY**

532 DIETZ ROAD • WARREN, OHIO



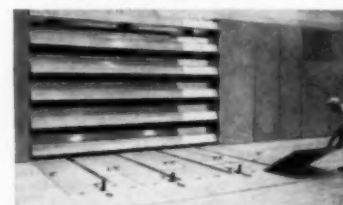
### **EASIER SWEEPING**

Under structure is simple and uncluttered—makes "after game" clean-up quick and easy—plenty of room to push a floor brush.



### **FOLDS FLAT AGAINST WALL**

When not in use, Amweld Easi-Fold Bleachers fold up—out of the way—yield an extra bonus in usable floor space.



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Floor protected when Bleacher is opened. Casters and vertical supports rest on protective cover—cannot mar expensive wood floors.



### **ONE MAN CAN OPERATE**

Easi-Fold Bleachers roll out smoothly—are perfectly balanced for easy one-man opening and closing.

COLLEGE and UNIVERSITY BUSINESS



# WHAT'S NEW

April 1955

Edited by Bessie Coveri

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 104. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

## Year-Round Air Conditioning With Unarco "Dual-Vector"



Year-round air conditioning is now possible at a low price with the new Unarco "Dual-Vector" hot and chilled water heating and cooling system. It can be easily installed in existing wet-heat structures as well as in new buildings and provides a completely flexible system of balanced air conditioning for any sized room. Winter dirt and summer pollen are trapped in the filters and clean, quiet, even heat is provided in winter with cool, dehumidified air in summer. A unit fan control permits individual room temperature and humidity capacities which can be operated thermostatically or by manual settings. Union Asbestos & Rubber Co., Heating and Cooling Div., 332 S. Michigan Ave., Chicago 4.

For more details circle #359 on mailing card.

## Wescodyne Disinfectant Is "Tamed" Iodine

The familiar disadvantages of iodine as a disinfectant, such as sting, stain and toxicity, have been removed from Wescodyne, the "tamed" iodine disinfectant. This new development in the field of health and sanitation has undergone numerous and repeated tests for effectiveness and safety to result in the use of the germicidal qualities of iodine in new ways to protect health. Tests in hospitals and medical schools have indicated that the "tamed" iodine is effective in killing polio virus as well as the tubercle bacillus and influenza virus.

Wescodyne is effective for "environmental" sanitation as an all-purpose disinfectant, deodorizer and cleaner which is non-toxic in use dilution. West Disinfecting Co., 42-16 West St., Long Island City 1, N.Y.

For more details circle #360 on mailing card.

## Georama Wall Covering Has Easily Cleaned Colors

A line of vinyl wall coverings in solid colors has been introduced as the Georama line. The line was developed as a result of demand from executives and architects for solid materials for corridors. This durable, semi-flexible vinyl wall covering is fade resistant, washable, fire-resistant, resistant to scratching, scuffing and snagging, and is uniform in color. It has sandwich construction of tough vinyl plastic laminated to rubber-impregnated fiber backing, offering chemical compatibility and dimensional stability which eliminates shrinkage at the seams. The new Georama colors are carefully selected to fit into any color harmonies. The material is available by the yard and is offered in ten attractive colors. Bolta Products, Lawrence, Mass.

For more details circle #361 on mailing card.

## Curtain Traverse Track for Smooth Operation



The new Son-Nel Curtain Conveyors are designed for use in the classroom, auditorium or other area. The traverse track of extruded aluminum is available in standard lengths of 12, 14, 16 and 18 feet, or cut to measure. Traverse tracks and hardware are dimensionally accurate and precision made of durable materials to ensure smooth operation and long usage. Carrier rollers and wheel pulleys of Phenolite are designed for long life.

The traverse track may be mounted on the backing strip and concealed by plaster or acoustical tile, or it may be mounted directly to ceiling or window framework. It can be used for window draperies, for auditorium curtains, for dividing classrooms and other areas and for other uses where curtains or draperies are required. Son-Nel Light Control Drapes are especially designed as an aid to visual education to provide needed darkening. Son-Nel Products Company, 900 19th Ave., Oakland 6, Calif.

For more details circle #362 on mailing card.

(Continued on page 84)

## Electric Hand Dryer Is Semi-Recessed

Faster drying with an improved heating element is offered in the improved Sani-Dri electric hand dryer for semi-recessed installation. A new circuit-breaker, which shuts off the heating element when a hand is placed on the air intake or nozzle, prevents damage but automatically makes contact when the hand is removed. The improved starting switch is easy to operate and provides instant starting. The new simplified timing device shuts the machine off automatically. The new model has cast iron frame and case with lifetime porcelain enamel finish. The Chicago Hardware Foundry Co., No. Chicago, Ill.

For more details circle #363 on mailing card.

## "Trim Line" Furniture Features Modern Design

A new line of tubular steel school furniture in modern design has been introduced by Heywood-Wakefield. Known as the "Trim Line," all types of classroom desks, chairs, tables, tablet arm chairs and auxiliary pieces are included. Chrome frames, multi-colored book boxes and solid wood seats and tops in natural finish are high points of the new line.

Illustrated is a desk and chair unit typical of the new furniture. The clean, modern lines of the design make for attractive classroom appearance. Units can be moved to suit special needs and harmonize with other pieces in the line. They are easy to clean and maintain and are ruggedly constructed for hard usage. The new "Trim Line" is being offered in addition to the standard line of tapered



\$200 or

steel school furniture manufactured by the company. The Heywood-Wakefield Company, Menominee, Mich. and Gardner, Mass.

For more details circle #364 on mailing card.

## What's New . . .

### Improved Projector for Classroom Use

The new Keystone Overhead Projector No. 1055 has been redesigned to make it more efficient in operation and in results. Brighter illumination on the



screen is offered in the new classroom unit for lantern-slide projection. A double-walled lamphouse and newly designed cooling system give quiet, cool operation. Projection lamps of 500, 750 and 1000 watts can be accommodated in the new unit.

The widely varied usefulness and flexibility of the original Keystone Overhead have been retained in the new model which projects standard lantern slides, multiple Tachistoslides, and with accessories also handles 2 inch slides, strip film and microscopic slides. The new projector is readily portable, with or without the case. **Keystone View Co., Meadville, Pa.**

For more details circle #345 on mailing card.

### Electronic Air Cleaner in Institutional Sizes

Two new models of the Electro-air electronic air cleaner have been developed for institutional and commercial installations. The larger line is built to fit exact specifications so that institutions can install correctly sized electronic air cleaners in conjunction with heating and cooling plants. Known as the "Built-Up" unit, it is completely assembled and tested at the factory, then match-worked, disassembled and shipped in crates marked for easy erection. The all aluminum framework eliminates the possibility of rust.

The second model is the "Custom-Line" unit. This packaged air cleaner is complete in a steel cabinet and is designed for use where space is limited. It is available in a number of sizes and may be floor mounted or suspended. The new models operate by ionizing dust, soot and pollen particles in the air stream and depositing them on aluminum plates where they are held until flushed away by washing manifolds. **Electro-air Cleaner Co., 1285 Reedsdale St., Pittsburgh 33, Pa.**

For more details circle #346 on mailing card.

### Anti-Bacterial Action in Germ-Aseptic Liquid

Scientific protection against the growth of micro-organisms is offered in the new clear, odorless liquid known as Germ-Aseptic. It imparts anti-bacterial properties to surfaces and leaves residual protection until the next cleansing process. It is effective in sanitizing floors, walls, rugs, tile, linoleum and sanitary facilities and provides anti-bacterial and anti-fungal treatment. It has no unpleasant odor and prevents the cause of malodors by removing bacteria.

Germ-Aseptic has passed the United States Government specifications for mildew proofing tests, according to the manufacturer. Surfaces treated with Germ-Aseptic are said to resist mildew, rot and musty odors. There is no soap scum, rinsing after use is not necessary, and no additional cleansing agents are required. **Germicidal Corp. of America, 41 E. 42nd St., New York 17.**

For more details circle #367 on mailing card.

### Self-Closing Lids for Ash and Garbage Cans

A new type of self-closing, push-top lid is now available for the Witt line of heavy duty ash and garbage cans. Made



of 24 gauge Witt Perma-Zinc sheet steel, the push-top lid is available in 16, 18 1/4 and 20 1/2 inch outside diameter sizes for 20, 27 and 33 gallon sized cans. An inside tension spring keeps the 8 3/4 inch opening in the lid firmly closed when not in use. The lids produce more sanitary type refuse receptacles as they fit snugly yet are easily removed for emptying. **The Witt Cornice Co., 2118 Winchell Ave., Cincinnati 14, Ohio.**

For more details circle #368 on mailing card.

### Interior Wall Tile Reduces Costs

Kermet Ceramic Glazed Structural Facing Tile has been developed to reduce the cost of interior walls. It was especially engineered to meet the needs of institutional construction budgets and rigid performance requirements. It has a gray speckled satin-mat finish that harmonizes with all decorative plans and assures good light reflectivity. Kermet has a first quality ceramic surface on genuine clay tile and comes in a simplified line of 6T Series Shapes to save design time. **Metropolitan Brick, Inc., Canton, Ohio.**

For more details circle #369 on mailing card.

(Continued on page 86)

### Wax-Base Finish Protects Terrazzo Flooring

Protection against water, stains and dust is offered in Terra-New Terrazzo Seal. This new wax-base finish is designed to protect terrazzo, marble and ceramic tile floors. Heavy traffic areas can be touched up as needed and blended in with the finish on the rest of the floor. The finish is colorless and provides a high gloss without slipperiness. One gallon covers approximately 1,500 square feet and the product is available in 1, 5, 30 and 55 gallon drums. **S. C. Johnson & Son, Inc., Racine, Wis.**

For more details circle #370 on mailing card.

### Food Counter Tops in Formed Plastic

A new formed plastic counter top has been developed for use in cafeterias, lunch rooms, soda fountains and other food service counter installations. It features a continuous, seamless contour edge formed from one piece of plastic. The new Formrest top gives longer wear and greater sanitation due to elimination of seams at the edge. It is available in a wide range of new Formica Sunrise colors and patterns super-bonded to a full nine ply hardwood core. The new Formrest is available in straight line counters with segmented corners, making it practical for nearly every type of installation. **The Formtop Division, Johnson Plastic Tops, Inc., Elgin, Ill.**

For more details circle #371 on mailing card.

### Drop-in Waste Receptacle Has Unobstructed Opening

All around accessibility and fast deposit of refuse are features of the new Bennett Drop-in Waste Receptacle. Moving parts, breakage and adjustments are eliminated as waste is dropped in the unobstructed top opening. The receptacle is complete with full size,



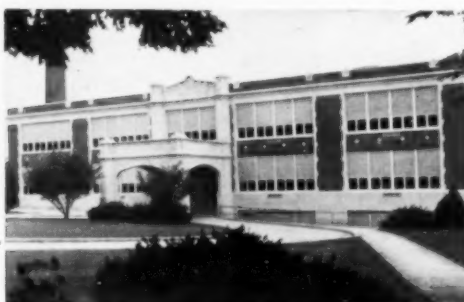
watertight galvanized liner which is equipped with a convenient, full swing handle for fast emptying. **The Bennett Mfg. Co., Alden, N.Y.**

For more details circle #372 on mailing card.



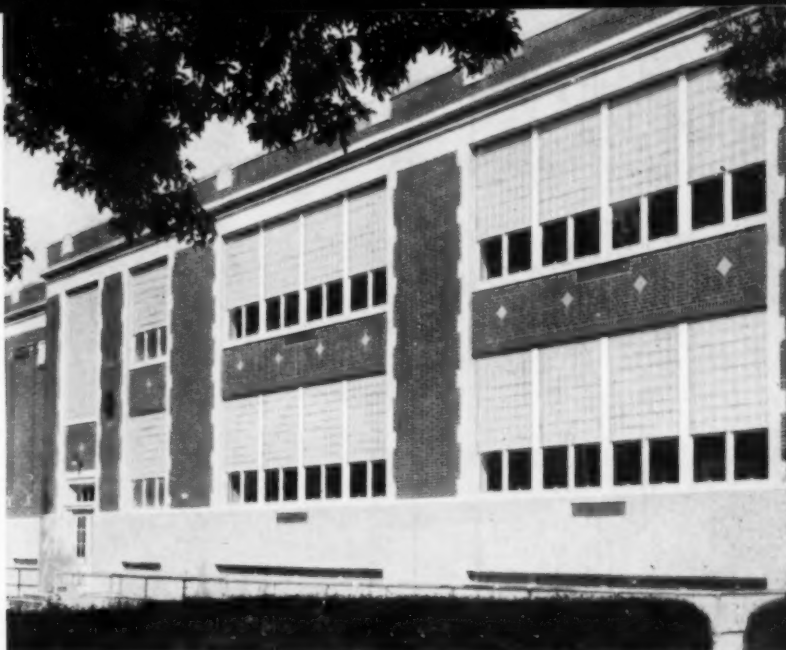
#### BEFORE

Worn sash let in wintry blasts. Teachers had to continually adjust shades to cut glare. Natural light in rooms was cut and the school presented a patchwork appearance from unevenly adjusted shades.



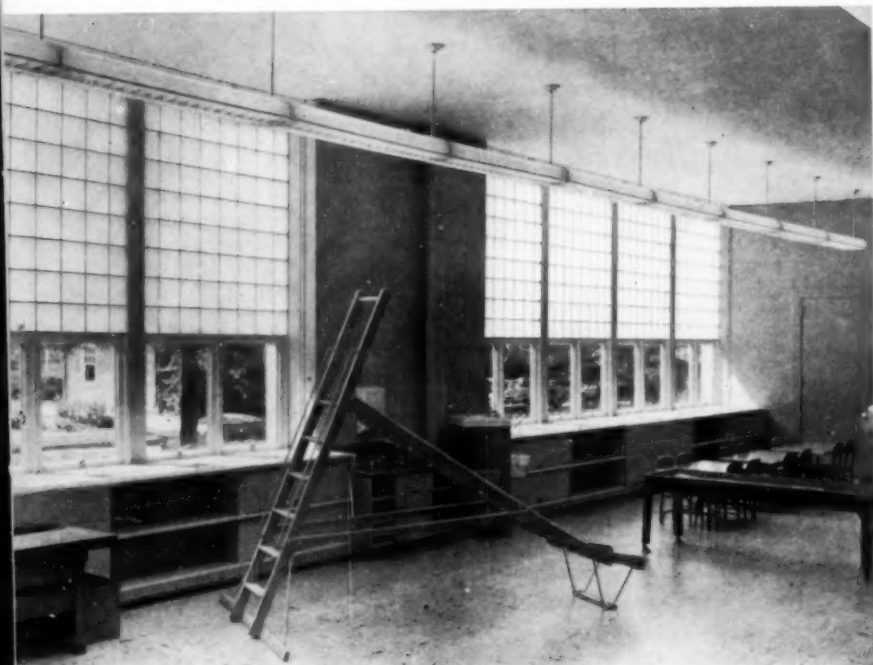
#### AFTER

See how Owens-Illinois Glass Block improve the appearance of the school. Glass block panels insulate so efficiently and daylight so effectively, heating and lighting costs are cut.



New panels of glass block have practically eliminated maintenance costs. Glass block won't rust or rot, are hard to break. What a change from the old windows which needed constant, expensive maintenance and did not provide healthful daylighting throughout classrooms.

## Owens-Illinois Glass Block\* solved a maintenance problem while providing better light




With panels of glass block, daylight is directed upward and diffused over all parts of the schoolroom all day long. The combination of light-directing glass block and vision strip keeps brightness at comfortable levels, provides vision and ventilation. Excessive glare and harsh contrasts are eliminated.

THE Wyomissing School at Wyomissing, Pa., was in the same condition as hundreds of other schools across the country. Window sash were worn out and maintenance was a continuous, costly job. Glare, harsh contrasts and inadequate light were big problems.

Replacement with panels of Owens-Illinois Glass Block solved their problem. If you are in the process of remodeling old structures, or building new ones, don't overlook the positive advantages—maintenance economies, better seeing conditions—that panels of glass block bring. For complete information write Kimble Glass Company, subsidiary of Owens-Illinois, Dept. CU-4, Toledo 1, Ohio.

\*Formerly known as INSULUX

OWENS-ILLINOIS GLASS BLOCK  
AN  PRODUCT

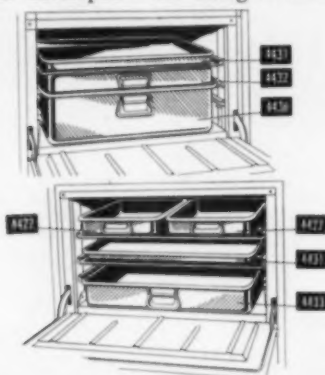
OWENS-ILLINOIS  
GENERAL OFFICES • TOLEDO 1, OHIO



## What's New . . .

### Aluminum Pans for Modern Ranges

A set of seven new Wear-Ever aluminum roasting and baking pans has been developed with straight sides to



utilize oven space to the best advantage. Several different baking combinations can be arranged in each oven with the new line which is designed for use in modern ranges now used in institutional kitchens. Time and fuel are saved by the arrangements possible with the new pans.

Included in the line are two types of pans, one for full-oven size and one for twin-oven size, with the shallow pans designed to serve as covers or as separate roasters. When the shallow pans are used as covers the unit becomes a steam-seal roaster. At least fourteen different combinations are possible with the set of new pans which are made of hard aluminum alloy with seamless construction throughout for easy cleaning and sanitation. A spring-type handle makes for easy handling and no waste space. **The Aluminum Cooking Utensil Co., Inc., New Kensington, Pa.**

For more details circle #373 on mailing card.

### Efficient Mimeograph at Low Cost

Deluxe operating features are provided in the new Model 437 low-cost electric



mimeograph. The table-top model has an enclosed cylinder, permitting the use of new mimeograph inks which dry on contact with the paper. It offers hairline registration, a full ream feed, a new dual roll feed that may be set to eliminate

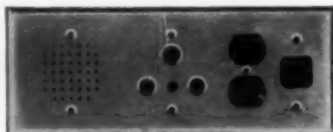
paper lint on copy areas or to avoid smearing pre-printed copy, and variable speeds from 90 to 180 copies per minute. Two ink pads can be used at one time on the machine for multi-color duplicating.

Operating controls on the Model 437 are clearly identified. Complete operating instructions are given on permanently attached metal decals, eliminating the need for instruction books which were often misplaced. The new machine gives quality service and results at low cost. **A. B. Dick Company, 5700 W. Touhy, Chicago 31.**

For more details circle #374 on mailing card.

### Electrical Face-Plates in Special Sizes

Special face-plates for electrical outlet boxes can now be made to fit any need. Face-plates of from one to six-gang, with outlets in any desired sequence, can be made at standard price. Special orders are required for sizes over six-gang. Plates are made of .036 inch gauge stainless steel, satin finished and lacquer coated. Black phenolic plates can also be supplied to specifications, engraved with



whited or color-filled letters. **The Colonial Electric Co., 11462 Euclid Ave., Cleveland 6, Ohio.**

For more details circle #375 on mailing card.

### Mechanical Control for Parking Lots

The WRRS Electric Parking Lot Gate, Model No. 200-PL, provides a mechanical "attendant" for the parking lot, saving the cost of a full-time supervisor. The gate is simple and effective in operation. The driver deposits a coin in the coin box at the gate, a three-way positive magnetic control opens the gate to admit the car, and the gate closes when the car clears. Operation is such that the gate cannot come down on the car. The control of the gate is timed to prevent the passage of more than one car in each operation. Exit gates are operated by a treadle. **Western Railroad Supply Co., 2428 S. Ashland Ave., Chicago 8.**

For more details circle #376 on mailing card.

### Seating Space Saved With Tablet Armchair

Comfortable seating is provided in a minimum amount of space with the new No. 2800 Tablet Armchair. The unit is attractive in appearance, durable in construction and requires a minimum of maintenance. The sloping tablet gives

(Continued on page 90)

seating and writing comfort and the built-in book rack under the seat is practical and convenient.

Matching wood grain Nevamar high-pressure laminates are used to surface



the writing arm for minimum maintenance and long life. It is highly resistant to stains and will not chip, crack or peel, according to the manufacturer. The top is sealed with Wynene "T" edging. Solid hardwood and hardwood veneers are used in the construction of the chair which has non-skid plastic glides to protect floors and reduce noise. **National School Furniture Co., Odenton, Md.**

For more details circle #377 on mailing card.

### Visual Experiment Possible With Electronics Kit

Students who have completed the beginners' electricity course can go into the study of electronics with the new Basic Electronics Kit. Model 50-A is a low cost model for visual experiment which permits students to learn by doing. The kit contains 82 precision components for performing sixty experiments in electronics fundamentals. Included in the kit is a 275 page illustrated manual, "Experimental Electronics for the Beginner," which serves as a guide to each step in the experiments. The kit is



designed for use in school shop courses, armed forces training schools and other educational programs. **Crow Electric Corp., 1102 Shelby St., Vincennes, Ind.**

For more details circle #378 on mailing card.



Attractive student lounge, Concordia College, River Forest, Illinois  
Architects: Perkins & Will, Chicago, Illinois  
Acousti-Celotex Contractor: James L. Lyon Co., Chicago, Illinois

## QUIET... silent associate to learning and leisure

To the student bent on concentrated study, the slightest of unwanted sounds can be highly annoying. Likewise, during his rest periods, he seeks calm relaxation, free of unchecked noises from surrounding classrooms and corridors. In both instances, colleges and universities throughout America are finding the perfect contribution. Their solution: Acousti-Celotex Sound Conditioning.

**Instantaneous Improvement:** A sound-absorbing ceiling of Acousti-Celotex Tile acts immediately to arrest alien sounds in study halls, lounges, corridors, classrooms, auditoriums, libraries, gyms, cafeterias. Students welcome the *quiet comfort* that results, find it aids lecture listening and learning, makes out-of-class intervals truly

restful. Instructors, too, discover a marked increase in their own efficiency as they conduct daily classes.

**Simply Maintained:** Quickly installed in existing buildings or during new construction, Acousti-Celotex Tile requires no special maintenance thereafter. It has remarkably high sound-absorption value, and comes in a variety of beautiful finishes. And it can be washed *repeatedly* and painted *repeatedly*, losing no sound-absorbing qualities.

**Mail the Coupon!** . . . for a Sound Conditioning Survey Chart that will bring you a *free analysis* of the noise and acoustical problems in your school, plus a free factual booklet, "Sound Conditioning for Schools and Colleges." There is no obligation.

**ACOUSTI-CELOTEX**  
REGISTERED U. S. PAT. OFF.  
*Sound Conditioning*



Products for Every Sound Conditioning Problem—The Celotex Corporation, 120 S. LaSalle St., Chicago 3, Illinois. In Canada: Dominion Sound Equipments, Limited, Montreal, Quebec.

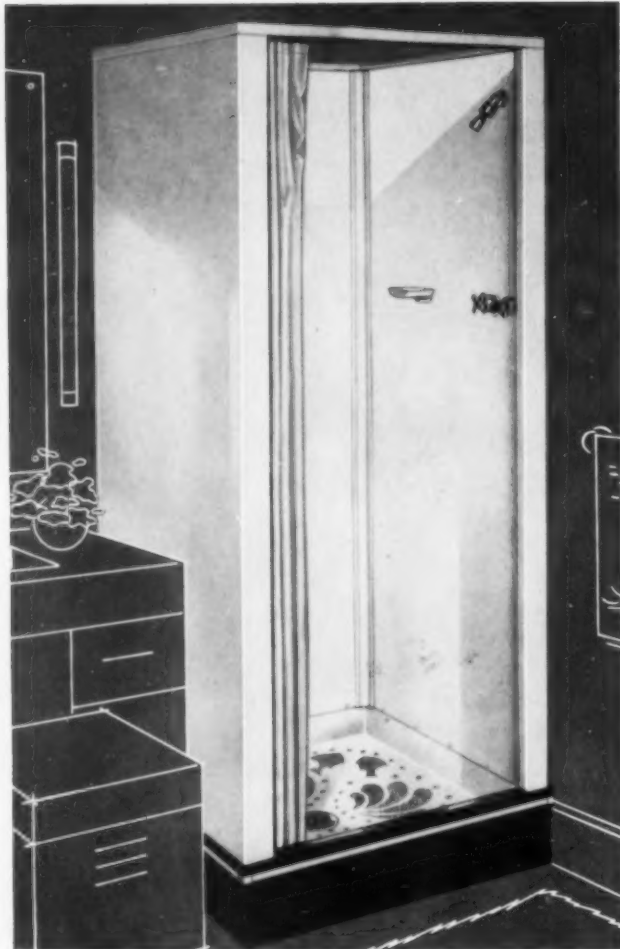
### Mail Now!

The Celotex Corporation, Dept. T-45  
120 S. LaSalle St., Chicago 3, Illinois

Without cost or obligation, please send me the Acousti-Celotex Sound Conditioning Survey Chart, and your booklet, "Sound Conditioning for Schools and Colleges."

Name \_\_\_\_\_ Title \_\_\_\_\_  
Institution \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**A LEADING UNIVERSITY  
PROVES WEISWAY QUALITY  
ACTUALLY COSTS LESS!**



*Weisway Standard Model as used in the installation described.*

The original installation in housing for married students at one of the nation's leading universities included 60 Weisway Cabinet Showers and 466 shower stalls of another make.

Within five years the 466 had rusted so badly that replacement was a necessity. The original Weisways were still providing their dependable, leakproof service.

Here was dramatic proof of Weisway's superior service under identical conditions of use! Weisway Standard Model 32VR Cabinets were chosen to replace all of the rusted out showers.

Measured in years of dependable service Weisway quality costs you less. Specify Weisways when building or remodeling.

**Weisway** CABINET SHOWERS

HENRY WEIS MFG. CO., INC., 439 Weisway Bldg., Elkhart, Ind.

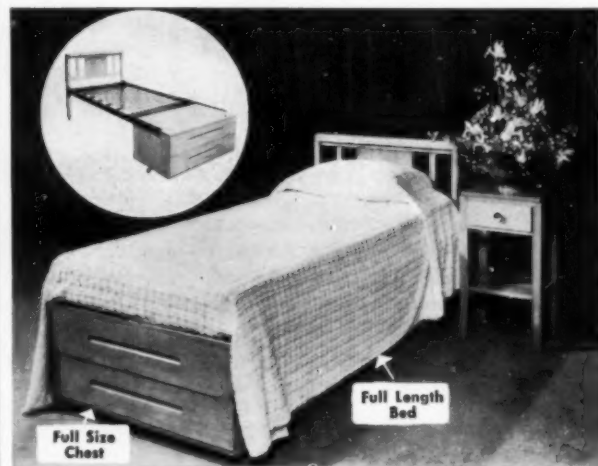
**BEAVER**  
*Riding Tractor*  
most **VERSATILE** all-season  
MAINTENANCE UNIT YOU CAN BUY



Here's how you can do an almost endless variety of jobs with one machine . . . and cut your maintenance costs by a big margin. It's the Beaver Riding Tractor! Low in cost and economical to run, the Beaver is powerful enough to do the heavy jobs, rugged enough for the toughest jobs, and nimble enough for the precise jobs. A complete line of implements and accessories are built to the same heavy duty standards as the Beaver. Full 6 h.p. Write for name of dealer who will arrange demonstration.

Manufactured by  
**THE BAIRD MACHINE COMPANY**  
Builders of High Production Machines Since 1849  
Dept. CU Stratford, Connecticut

3WT55R



**NEW...TWO-IN-ONE  
DORMITORY CHEST BED**

Ideal for use in dormitory room, where space is a factor. Bed is standard dormitory width, 3'0" x 6'6" with extremely durable and comfortable spring construction. Chest is 36" wide x 20" deep x 15" high—has two large, deep drawers. Bed ends and chest are made of solid Canadian birch, finest quality and finish. Mounted on rubber wheel ball bearing casters to facilitate moving.

FOR COMPLETE DETAILS  
WRITE FOR  
LEAFLET T065DB

E-7

**EICHENLAUBS**  
Contract Furniture  
3801 BUTLER ST. PITTSBURGH 1, PA.  
ESTABLISHED 1873





*"It's like waxing your floors with a film of plastic"*

**W**HEN you apply new SUPER WESTWAX it's just like laying down a protective sheet of tough, transparent plastic on your floors.

With NEW SUPER WESTWAX you get

- brilliant gloss
- extra durability
- freedom from discoloration
- easier maintenance

Why? Because this heavy-duty formulation contains —  
West's crystal clear Plastic Emulsion, MIRITE®  
and  
prime #1 yellow Carnauba Wax.

**I**T combines all the features of the finest floor protection in a single wax:

- dries to a hard, mirror gloss
- resists scuffing from traffic
- resists water
- requires no polishing

And SUPER WESTWAX is slip resistant — meets Underwriters' Laboratories requirements for floor treatment materials.

**L**ET a West floor expert demonstrate SUPER WESTWAX on your own floor — show you how easy it is to use. No obligation, of course. Just send the coupon.

NEW  
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contains  
MIRITE®  
PLASTIC  
EMULSION

OLDEST AND LARGEST  
COMPANY OF ITS KIND  
IN THE WORLD



WEST DISINFECTING COMPANY

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In Canada: 5621-23 Casgrain Ave., Montreal

- ☐ I'd like a free copy of your folder on SUPER WESTWAX.  
☐ I'd like to have a WEST representative telephone me for an appointment.

Name \_\_\_\_\_

Position \_\_\_\_\_

(Tear out this coupon and mail it with your letterhead)

CUB

## What's New . . .

### Special Coating on Laminated Maple Tops

A new carbonized acid and alkali resistant coating is now used on the Tolco laminated Northern hard maple tops for use in areas where sealing is important. Select strips of  $\frac{3}{4}$  inch maple are accurately milled and electronically glue welded to form a solid edge grained top. Controlled gluing pressures and accurate regulation of the electronic process, with narrow laminations, results in an accurate glue bond.

Multiple coats of sealers and acid resistant materials are sprayed on the top and on all exposed edges to form the new Tolco Acid Resistant Top which is designed for years of severe usage in the laboratory. A special sealer on the bottom prevents moisture absorption and warping. The tops are available in sizes from  $1\frac{1}{4}$  to 4 inches thick, in widths to 60 inches and lengths up to 12 feet in one section. The Tolerton Company, 265 N. Freedom Ave., Alliance, Ohio.

For more details circle #379 on mailing card.

### Low-Cost Microscope Has Simplified Operation

The No. 73 Microscope is designed for student use at a cost within the reach of the school budget, according to the manufacturer. Operation is simplified by

the single combination coarse and fine adjustment control. A dual cone nose-piece, a gear-train coarse-fine adjustment which prevents racking objectives into slides, and a rotating 5-aperture disc diaphragm which clicks into each numerically identified position are features



of the new unit. The position of the control knobs and stage makes for comfortable operation.

The new instrument has an attractive  
(Continued on page 92)

metaloid finish which is resistant to the usual laboratory reagents and the bullet-shaped objectives are color-anodized for easy identification. American Optical Company, Instrument Division, Buffalo 15, N.Y.

For more details circle #380 on mailing card.

### Floor Finishing System Is Fast Drying

Both a sealer and an alkyd varnish of special formulation are used in the new Sherwin-Williams one-day floor finishing system. Applicable to new building construction and to floor maintenance in public or institutional buildings, the new system permits refinishing with a minimum of out-of-service time. The sealer dries within an hour and a half or two hours after application. It may be applied by brush, mop, squeegee or spray. The clear alkyd varnish is dust-free in one hour and completely dry in six to eight hours under normal atmospheric conditions. The varnish may be brushed or sprayed to produce a full gloss finish that is resistant to water, tea, coffee, fruit juices, alcohol and other liquids. It is sufficiently durable for use on exterior surfaces as well as on interior woodwork, furniture and floors. The Sherwin-Williams Co., 101 Prospect Ave., N. W., Cleveland 1, Ohio.

For more details circle #381 on mailing card.



### 6-COMPARTMENT PLASTIC TRAYS

Serve More People **FASTER** and Better!

**AT LAST!** Beauty comes into the cafeteria as science comes into the tray. These light weight, eye-appealing compartment trays, in your choice of five exquisite pastel colors, invite—and increase the appetite! You eat right off the tray! Scientifically divided for a balanced diet with six proper size compartments for portion control and to prevent different foods from running together. So—less dishes to handle—less breakage—longer life. These colorful food service trays also speed up the line in serving and save time and fatigue in washing. Easy to clean—easy to **STACK**.

Yet plastic ware is only ONE of the 50,000 items of EQUIPMENT, FURNISHINGS, AND SUPPLIES sold by DON for your economy, efficiency and better service; in fact, everything from the range to the napkins and toothpicks—and on everything: **SATISFACTION GUARANTEED!**

Write Dept. 6 for a DON salesman to call! He can help you set up your school lunch programs. His experience can be a valuable aid.

**EDWARD DON & COMPANY**

Miami 32 CHICAGO 16 Minneapolis 1

## BANISH BAD SMELLS!

DOZENS OF USES FOR THE  
**NEW DEODOROMA ROUNDS**



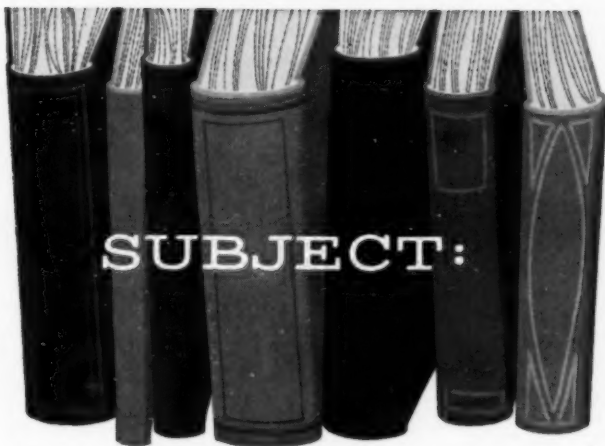
Let these individually-wrapped cakes of PACKAGED DEODORIZATION stand guard in all places where disagreeable odors develop. They'll provide a pleasant, invigorating fragrance. LONG-LASTING, ECONOMIC!

Special wire loops provided with DEODOROMA ROUNDS permit placement anywhere—in washrooms, in garbage cans, lockers, closets, on shelves.

Write for literature or see your  
Dolge Service Man

FOR FREE  
SANITARY SURVEY  
OF YOUR PREMISES  
SEE YOUR  
DOLGE SERVICE MAN

**DOLGE**  
WESTPORT, CONNECTICUT



**SUBJECT:**

## Budgetary control - how to simplify and make more effective.

### HERE'S THE BOOK YOU START WITH:

Your telephone directory will put you in contact with our representative in your community. Let him show you how the Burroughs Budgetary Accounting Machine makes possible simple form design . . . forms that are more compact, neat, and logically arranged.

He'll show you mechanized advantages, too, such as the "repeat" feature that reduces indexing work, and the positive form alignment of the Burroughs Budgetary Accounting Machine. You'll be impressed with the posting speed and simplicity of operation obtainable with this combination of right form and right machine for perfect budget control. Burroughs Budgetary Accounting Machine mechanically prevents posting errors caused by the operator's picking up previous balances incorrectly.

### FREE: "STREAMLINED GOVERNMENTAL ACCOUNTING AND MANAGEMENT REPORTS."

Our special booklet on streamlining accounting and management reports is packed with helpful information on how the Burroughs Budgetary Accounting Machine simplifies budget ledger preparation and other accounting operations. Phone our local representative and ask for your copy, or write Burroughs Corporation, Detroit 32, Michigan.

WHEREVER THERE'S BUSINESS THERE'S

Burroughs is a trade-mark.





## What's New . . .

### Reproductions Available of Pre-Columbian Sculpture

Reproductions of originals from the Arensberg Collection of Pre-Columbian sculpture at the Philadelphia Museum of Art are now being made available for study or as decorative pieces. The collection is described as one of the most representative of the cultures of Mexico and Central and South America. Infinite care has gone into the making of molds and casts of eight of the pieces for reproduction. The casting material



is a stone-like composition offering strength with exact reproduction of detail, from fine lines to rough surfaces. Each cast is hand-finished to match the color and patina of the originals.

The Laughing Head illustrated, presumably from the Late Pre-Columbian period, is an example of the pieces available which cover several cultures and areas in time as well as in geographical location. The very carefully executed reproductions are available at small cost and should provide excellent teaching material as well as interesting decorative sculpture. **Museum Pieces Incorporated, 114 E. 32nd St., New York 16.**

For more details circle #382 on mailing card.

### Gymnasium Floor Sealer Is Waterproof

Jim-Kote Lumx is an alkali, acid and water proof sealer for gymnasium floors. It will not darken with age and provides a smooth resilient playing surface that is durable and at the same time furnishes safe sure footing. **Selig Co., 342 Marietta N.W., Atlanta 3, Ga.**

For more details circle #383 on mailing card.

### Patty Machine Attaches to Meat Grinder

Less than a square foot of work room is required for the new award-winning Needham Patty Machine, Model No. 60, which attaches to the meat grinder. Patties, each on a paper square, are automatically extruded and ejected when the Patty Machine is attached.

(Continued on page 94)



Thirty to fifty patties a minute are turned out in the machine which has no extra parts. A thumb screw is turned for the thickness desired and patties may weigh from 2 to 8 ounces. The machine is simple in construction and design and is therefore easy to clean and operate. **Needham Manufacturing Company Inc., Needham Heights 94, Mass.**

For more details circle #384 on mailing card.

### Enriched Flour for Institutional Use

An all-purpose enriched flour is now being introduced for the institutional market. It is packaged in 25 pound paper and 100 pound cotton bags and is suited for food service operations. **Monarch Finer Foods Division, Consolidated Foods Corp., 135 S. La Salle St., Chicago 3.**

For more details circle #385 on mailing card.



## mobile efficiency and comfort

... engineered for durability



**C**



**B**

**A 3316-S17-B2, tablet 13x17"**  
**B 6340-S7-H19, tablet 12x23"**  
**C 6701-S7, tablet 12x23"**

Write us your needs. We will send you full illustrative material.

**THONET INDUSTRIES INC., DEPT. H-4**  
 One Park Avenue, New York 16, N. Y.

showrooms: NEW YORK, CHICAGO, DALLAS, LOS ANGELES, STATESVILLE, N. C.





## Classroom space requirements are heavy, too

With enrollments and building costs skyrocketing, you *have* to have more classrooms and get them at the lowest possible cost. In many places where you need more space, MODERNFOLD doors can provide it.

Large classrooms can be converted almost instantly into smaller areas for discussion groups; auditoriums into classrooms; gymnasiums into lecture halls—all with MODERNFOLD disappearing walls.

On student rooms, MODERNFOLD doors increase their occupancy capacity by freeing space once lost to door-swing. Constructed with an all-steel framework, MODERNFOLD is covered in durable, washable vinyl and comes in dozens of refreshing colors.

MODERNFOLD doors move easily into place on overhead tracks and switches, to give you space tailored to your requirements of today and flexible enough to meet tomorrow's needs.

The MODERNFOLD distributor is equipped to give you prompt service from initial planning to the completed installation. He's listed under "Doors" in city classified directories. Or write New Castle Products, Inc., Dept. D55, New Castle, Indiana. In Canada: New Castle Products Ltd., Montreal 6.

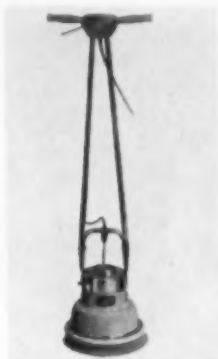

© 1968, NEW CASTLE PRODUCTS, INC.

## What's New . . .

### Floor Machine Handle Increases Use

The new three-way handle on the Advance Gyro 12 Floor Polishing and Scrubbing Machine gives the unit greater versatility. It handles as easily as a home type vacuum cleaner when the handle is in the "free" or "floating" position. The safety switch and balanced design make it possible for unskilled help to use the machine effectively.

The Gyro 12 operates as a conventional self-propelling floor machine with



the handle locked and moves back and forth across the floor as the handle is raised and lowered. With the handle locked in the vertical position the machine tilts back for easy transport to

storage or to place of use. It can be stored in minimum space. Advance Floor Machine Co., 2613 Fourth St. S.E., Minneapolis 14, Minn.

For more details circle #386 on mailing card.

### Flame-Resistant Panels for Skylighting

A self-extinguishing sheet for application in the skylighting of hospitals, schools and other institutions is available in the new "Fire-Snuf." The flame-resistant panels are molded with "Hetron," a self-extinguishing resin. Under the heat and flame of a blow-torch the new material will burn but extinguishes itself immediately upon removal of the source of flame and heat. "Fire-Snuf" is molded in all standard roofing and siding sizes. Resolite Corporation, Zelienople, Pa.

For more details circle #387 on mailing card.



the neck may be worn open or closed. E. R. Moore Company, 932 W. Dakin St., Chicago 13.

For more details circle #388 on mailing card.

### Tumbler Suit Is Fashionable and Functional

Students will enjoy wearing the new Pixie Tumbler Suit recently introduced. Known as Style A48-66, the Pixie has style appeal with functional design. Out-of-the-way fullness gives the suit an attractive appearance. Light-pressure elastic holds easily to the back of the waist and half-bands the leg. There is a "spillproof" pocket, all the leg freedom of shorts, and

(Continued on page 98)

### Niblets Corn in Institutional Cans

The fresh-off-the-cob variety of vacuum packed sweet corn is now available in institutional sized cans. Tasty Niblets Brand whole kernel corn, long known in the consumer market, is now offered for quantity servings, vacuum packed in 75 ounce cans. The new process gives the corn natural color and flavor. Green Giant Company, Le Sueur, Minn.

For more details circle #389 on mailing card.



### Checkerette® "Fold-away Steel Rack"

Meet a dozen everyday school needs—in auditoriums, laboratories, gyms, cafeteria, shop, classrooms, library, etc. Goes anywhere. Set up in minute without tools. Stores away like folding chair when not in use. Holds wraps, gowns, athletic gear, band uniforms, choir robes, etc., in a compact and orderly manner.

Rail can be placed at 3 different heights to accommodate different age groups, long robes, etc. Lifetime construction—welded heavy gauge box and "U" form sections; baked gray enamel finish. 4 ft. single faced unit takes 24 coat hangers; 4 ft. double faced unit 48. Three foot units also available.



Capacity can be doubled by using snap over coat hooks



Write for Bulletin CT16

**VOGEL-PETERSON CO.**

"The Coat Rack People"

1121 West 37th Street

CHICAGO 9, ILL.

### No. 315 UNIVERSITY TABLET ARM CHAIR.

Ideal for class or lecture room



DESIGNED FOR VALUE!



- Solid hard maple seat—saddled for comfort.
  - Large solid maple tablet arm—in proper writing position.
  - Heavy cast metal pedestal—non-flexing—stays put.
  - Available with underseat bookrack.
  - Suntan color—finished in tough scratch resistant "Celsyn".
  - Available with Fibersin plastic tablet arm
- "No One Ever Regretted Buying Quality"

**PEABODY SEATING COMPANY, INC.**  
NORTH MANCHESTER INDIANA





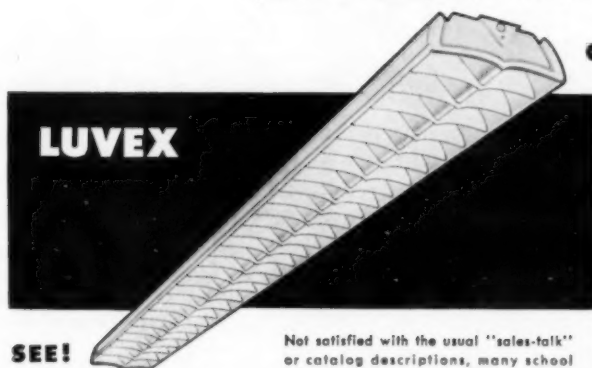
*Protecting priceless sight, Danville, Illinois,  
re-lights 24 schools with Day-Brite LUVEX® fixtures*

Realizing the value of priceless sight, school officials at Danville, Illinois, recently re-lighted 24 schools—all with Day-Brite LUVEX fluorescent fixtures.

They chose LUVEX for reasons apparent in the photograph of a typical classroom. Note the uniform, overall light pattern at desk-top levels. Note, also,

how effectively ceiling brightness contrasts are washed out—how LUVEX design takes full advantage of light-colored walls and ceilings. Observe, too, the high chalk-board visibility.

These are just a few of the reasons why more schools choose Day-Brite LUVEX Fluorescent Fixtures than any other make!



**SEE!  
EXAMINE!**

**COMPARE!**

Not satisfied with the usual "sales-talk" or catalog descriptions, many school officials make their own side-by-side comparisons between various fixtures under consideration. They realize they are investing in light they have to "live with" for 20 years and more. Naturally, they choose Day-Brite.

**CALL YOUR DAY-BRITE REPRESENTATIVE**

More and more school officials with original or re-lighting problems are consulting their Day-Brite representative. Why don't you? You'll find him fully qualified by long experience to advise you on any phase of school lighting.

5445



Day-Brite Lighting, Inc.,  
5452 Bulwer Avenue,  
St. Louis 7, Missouri.  
In Canada: Amalgamated  
Electric Corp. Ltd.,  
Toronto 6, Ontario.

**NATION'S LARGEST MANUFACTURER OF COMMERCIAL AND INDUSTRIAL LIGHTING EQUIPMENT**

# Completely New!

## AMERICAN SEATING ADULT-SIZE DESK NO. 445...



### Modern Styling • Greatest Student Comfort Steel Pylon Construction

Developed through extensive research for use in classrooms where adult-size, movable furniture is required. Many new features embody suggestions of educators, architects, leading designers.

New cradleform seat, for comfortable, dynamic posture, rotates on durable, silent, nylon bearings—allowing ingress and egress in one natural motion. Generous, adult roominess for knee, leg and body comfort. Adequate and sloped working surface. Visible, handy book-storage space.



**American Bodiform Auditorium Chairs**  
Full-upholstered—the ultimate in beauty, comfort, durability, acoustical benefit. Available with or without folding tablet-arm.

*American Seating Company*

World's Leader in Public Seating • Grand Rapids 2, Michigan  
Branch Offices and Distributors in Principal Cities  
Manufacturers of School, Auditorium, Theatre, Church,  
Transportation, Stadium Seating, and FOLDING CHAIRS

# HERRICK

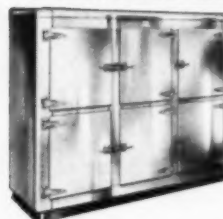
for the finest in  
*Performance-Proved*  
Stainless Steel Refrigerators,  
Freezers and Coolers

### MODEL SS60B REACH-IN



Self-contained. For kitchen, bakery, pantry, or salad preparation. Capacity, 55.8 cu. ft. Exterior dimensions: 78" wide, 32" deep, 76" high. Accommodates 18x26" serving trays. Also made in 4-door model. Available in white baked enamel-porcelain as well as stainless steel.

### MODEL RSS66 REACH-IN



For remote installation. Assures complete food conditioning. Capacity, 62 cu. ft. Exterior dimensions: 82" wide, 32" deep, 71" high. Also made in 2-door, 4-door and 8-door models. Offered with glass doors, if desired. Available in porcelain enamel as well as stainless steel.

### MODEL SS40FP UPRIGHT FREEZER



Self contained. Designed to meet the most rigid commercial demands. Capacity, 40.2 cu. ft. Exterior dimensions: 68" wide, 32" deep, 76" high. Also made in 20 and 30 cu. ft. models. Available in white enamel finish as well as stainless steel. Remote type freezers are available, if desired.

### MODEL 888S WALK-IN COOLER

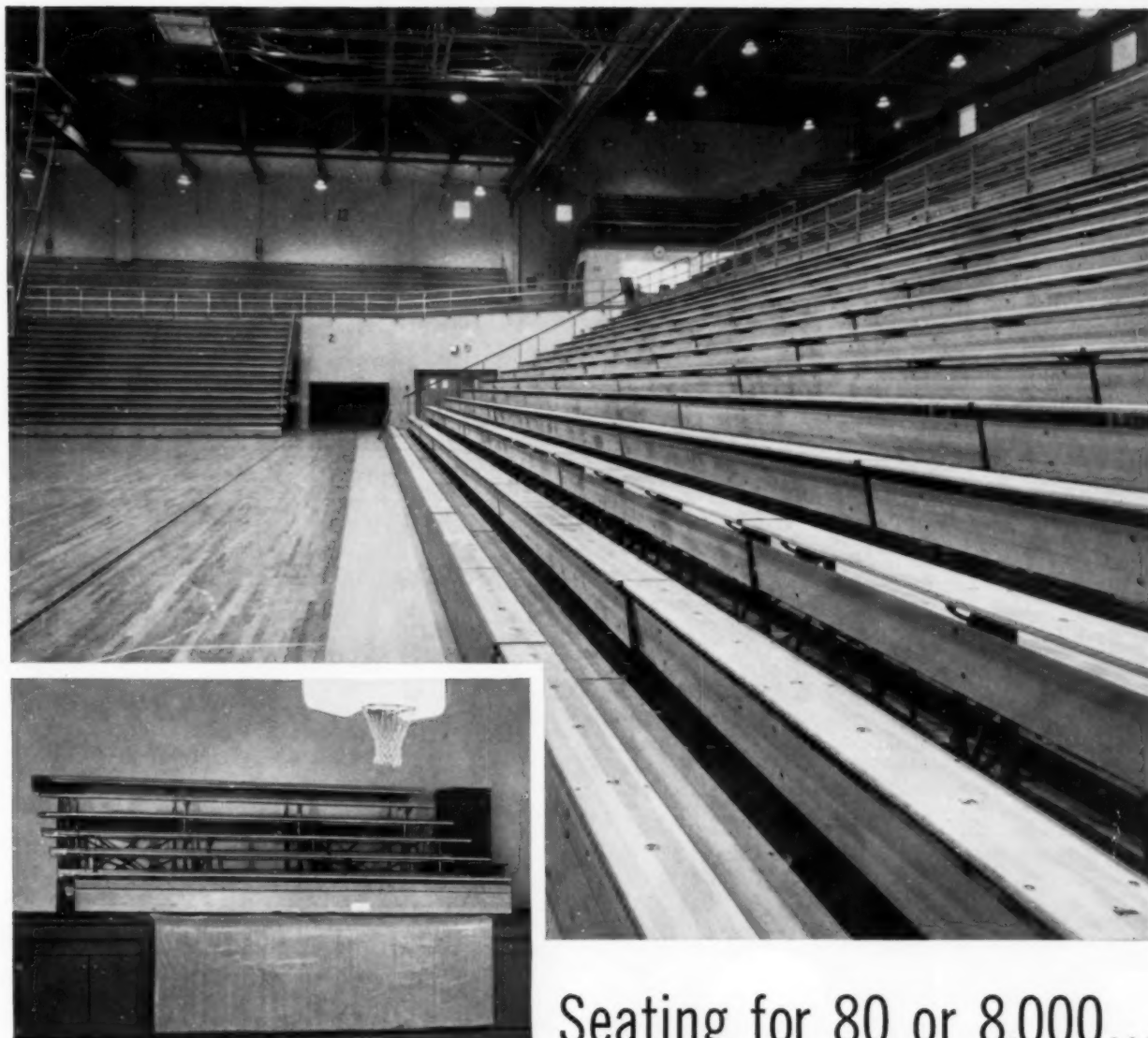


Permits economical bulk buying for menu diversification. Exterior dimensions: 8' wide, 8' deep, 8' high. Shown with white baked enamel finish on steel. Also available clad with stainless steel. Many other sizes can be obtained in single or multiple compartments.

HERRICK REFRIGERATOR CO., WATERLOO, IOWA  
DEPT. C., COMMERCIAL REFRIGERATION DIVISION

HERRICK

*The Aristocrat of Refrigerators*



Seating for 80 or 8,000...

Brunswick-Horn provides a practical answer



**Sit Up and Take Notice of Features in Brunswick-Horn Folding Gym Seats**



**ALL-STEEL UNDERSTRUCTURE:** (A) tubular column supports; (B) cross tie angles and bracing (no sway, shimmy or shaking). (C) Each row automatically locks as it opens and closes.



**CHAIR-HEIGHT COMFORT:** Custom-fitted, in a choice of 9" or 11½" rise and 22" or 24" spacing.

**EASY CLOSING:** One flow of pressure does it! Seat-boards remain flat—footboards tilt and riserboards swing out.



**FREE!** "Horn Folding Gym Seats" . . . catalog of facts, yours for the asking. Write today!

From the world's biggest (Northside Gym, Elkhart, Ind.)—to this small six-row unit seating 80 (Erie Elementary School, Erie, Ill.)—Brunswick-Horn Folding Gym Seats provide maximum comfort, safety and ease of operation. Elkhart needed eight miles of seating, enough to accommodate crowds of 8,000-plus. Erie needed versatility, a multi-purpose unit.

Whether your seating problem is big or small, a custom-built Brunswick-Horn installation is the answer. Write or wire today for name of the nearest Brunswick-Horn agent.



**THE BRUNSWICK-BALKE-COLLENDER COMPANY**  
623 South Wabash Avenue • Chicago 5, Illinois



## What's New ...

### Steel Shelving for Every Need

More than a thousand different combinations are possible with the new line of SPS Hallowell Steel Shelving. Available with or without sides and back, the shelving can be used in classrooms, libraries, offices, gymnasiums, locker rooms and wherever storage is needed. The precision manufacturing of the Hallowell shelving parts permits exact fitting to form shelves for specific spaces and needs, for temporary or long time storage.

Shelves can be bolted side by side for any desired length or back to back. All bolts and nuts are cadmium plated to protect against corrosion and the shelving is finished in baked green enamel. Shelves are of 18 gauge steel, come in 35 different sizes, and can be set up or knocked down with minimum expenditure of time and effort. **Standard Pressed Steel Co., Jenkintown, Pa.**

For more details circle #390 on mailing card.

### Vending Machine for Ice Cream Products

Time and money can be saved in the handling of ice cream for service to pupils with the new FHC Venders. Special freezers, storage facilities and servicing and clean-up work are elim-

inated with the new units which can be placed out of the way of the busy cafeteria lines. The venders are installed and serviced without cost to the school and can be used to supply ice cream at special meetings and other events as well as



during lunch periods. Strategically placed, they can prove to be a source of extra income to the institution. **Fred Hebel Corporation, Addison, Ill.**

For more details circle #391 on mailing card.

### Flexaframe Laboratory Wall Is Endlessly Adjustable

The Fisher Super Flexaframe is a sturdy floor model providing rigid yet individually demountable metal set-ups.

(Continued on page 100)

These unitized rods of hard aluminum provide a total of 24 square feet of adjustable and interchangeable support space in a stable 6 by 4 foot frame that stands on two broad cast-iron bases. The unit has a low center of gravity and can be moved with ease, or permanently bolted to the floor or wall. It provides a stable, convenient, versatile unit for laboratory work. In universities a Super Flexaframe between stations permits two students to work simultaneously from each side. **Fisher Scientific Company, 717 Forbes St., Pittsburgh 19, Pa.**

For more details circle #392 on mailing card.

### Wall Covering in Weave Design

Safari is the name given to a new Vicrtex original wall covering. The Safari pattern has the casual appearance of hand crafted horizontal strands lashed to an open-looking "weave" texture. The practically indestructible material is vinyl electronically sealed to a firm cotton backing. It can be applied to any flat or curved surface, such as wall or furniture covering, and requires no extra backing. It cannot snag, scratch, chip, crack or peel, is flame, stain and soil resistant, and wipes clean with a damp cloth. **L. E. Carpenter & Company, Inc., Empire State Bldg., New York 1.**

For more details circle #393 on mailing card.

since 1916... Vallen

since 1916... Vallen

\* SINCE 1916... VALLEN

since 1916, VALLEN has pioneered the design and development of curtain controls and tracks to fill the changing needs of the modern stage. Thus, today as in the past, you can install VALLEN equipment with confidence because you are wisely investing in the world's finest.

VALLEN junior curtain control

**Vallen, INC.**  
Akron 4, Ohio

SINCE 1916... VALLEN

since 1916... Vallen

## ROSEMAN MOWERS



### ROSEMAN PARK CHALLENGER MOWER FASTER . . . MORE EFFICIENT . . . LOWERS COSTS

Hundreds of Schools, Colleges, Universities have reduced lawn maintenance costs with the ROSEMAN PARK CHALLENGER.

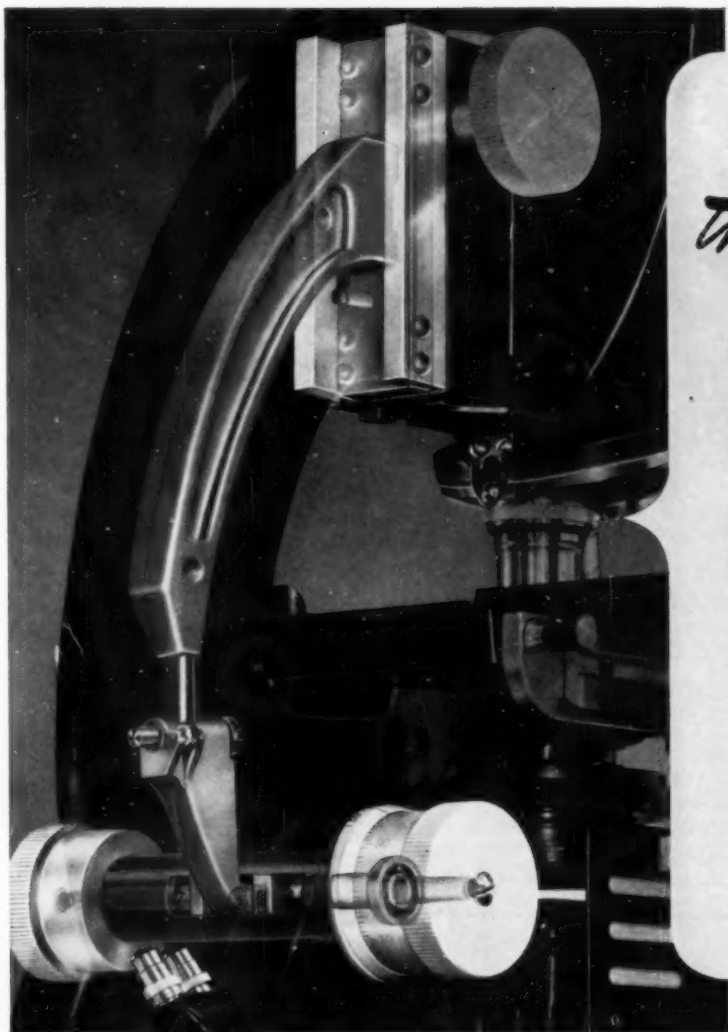
ROSEMAN MOWERS operate with remarkable dexterity and efficiency . . . close to trees and shrubbery, eliminating costly hand trimming. They will mow a given area 2 to 3 times faster and at lower cost than conventional slower methods.

Learn how you can have finer lawn areas at a substantial saving in maintenance cost.

Write for interesting information.

**ROSEMAN MOWER CORPORATION**

CENTRAL ROAD,  
EVANSTON, ILL.

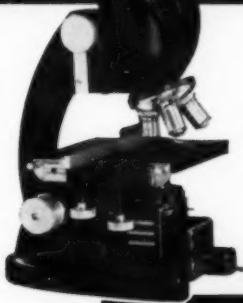


## *the Inside Story*

### of BAUSCH & LOMB GLIDE MOTION FOCUS

Fastest, easiest, most critical focus  
in microscope history!

- Glides smoothly into perfect focus—ball bearings and rollers throughout!
- Stays in perfect focus . . . radial thrust ball bearing makes backlash impossible!



You'll find this silk-smooth, easy focus a new experience in microscopy. From the convenient hand-height control to the eyepieces, the entire focusing system floats on specially tempered bearings and rollers . . . cushioned against wear or uneven travel . . . for a lifetime of precision performance. Here's the closest thing to theoretical friction-proof motion that has ever been achieved in microscope design! Another

*exclusive* advantage of Bausch & Lomb Laboratory Microscopes, the world's finest.

# BAUSCH & LOMB

SINCE  1853

Give  
to  
fight  
cancer



American  
Cancer  
Society

*Write*

for demonstration and  
Catalog D-185. Bausch & Lomb Optical  
Co., 76740 St. Paul Street, Rochester 2,  
New York.

 *Dynoptic* **LABORATORY MICROSCOPES**

## What's New . . .

### Band Director's Stand Has Folio Cabinet

The No. 38 Band Director's Cabinet has a 6 inch additional height adjustment for convenience and to facilitate the use of a podium. It is combined with a sturdy portable all steel cabinet mounted on 3 inch ball bearing casters. Two folio doors open to the orchestra side, unexposed to the audience. The cabinet has two tiers of 25 shelves each, 13 by 15 inches, to hold 50 individual folios of music. A lamp with bracket is an integral part of the unit.

Developed in cooperation with music department heads, the combination stand and cabinet has light brown hammerloid finish. The cabinet is 38 inches high unextended, 34 inches wide and 16 inches deep. **Smith System Heating Co., Special Equipment Div., 212 Ontario St. S. E., Minneapolis 14, Minn.**

For more details circle #394 on mailing card.

### Classroom Versatility Increased With Chair-Desk

Steel tubing and hardwood plywood are combined to form the new DCI Chair Desk. Correct posture design, book rack and easy ingress and egress are incorporated into the unit. Seat, back and desk top are of resin bonded hardwood plywood finished for durability

and ease of maintenance. The steel tubing frame is bronze welded for stability and chair legs are equipped with case



hardened steel rubber cushion glides to prevent damage to floors. **Seats & Desks, Inc., 218 S. Wabash Ave., Chicago 4.**

For more details circle #395 on mailing card.

### Rubber Products for Increased Kitchen Efficiency

A new heavy-duty line of fine rubber products has been introduced for increased efficiency in commercial and institutional kitchens. The heavy-duty Rubbermaid line includes drainboard trays, cup and glass racks, shelving, sink and dishbox mats, door and floor mats and dust pans of all rubber, for reduced noise and breakage. The newest item

(Continued on page 102)

in the line is the Rubbermaid Dishwashing Basket for efficient handling of dishware during washing, rinsing and drying. The plastisol coated wire basket can be used in either manual dishwashing or agitator type washers and is equipped with an interior rack for two-layer stacking of cups and glasses. **The Wooster Rubber Company, Commercial Products Div., Wooster, Ohio.**

For more details circle #396 on mailing card.

### Sound Synchronized With Colored Pictures

The new Projectograph is fully automatic in operation, with sound synchronized with brilliant colored pictures. It is designed for effective audio-visual presentations. Words or music are now electrically indexed on Mylar long-life recording tape. Each picture is individually controlled by its own message on the tape. The message may be of any length with the picture remaining on the screen for the full duration of the sound. The playback unit repeats up to 15 minutes of sound continuous with the tape in a self-contained cartridge. The Projectograph is available in a luggage-type case or cabinet for easy portability. It is also available in a new series of custom wood cabinets if desired. **Projectograph Corp., Oshkosh, Wis.**

For more details circle #397 on mailing card.

## LOOKING FOR SOMEONE?

Someone to fill a vacancy in your staff—a Business Manager—Superintendent of Buildings and Grounds—Purchasing Agent—Director of Food Service and Dormitories?

Or maybe you are thinking about making a change.

If so, consider placing a "Classified Advertisement" in the next issue of College and University Business.

It costs but 20c a word (minimum charge of \$4.00) to place your story before the administrative officers of colleges and universities in this country and Canada.

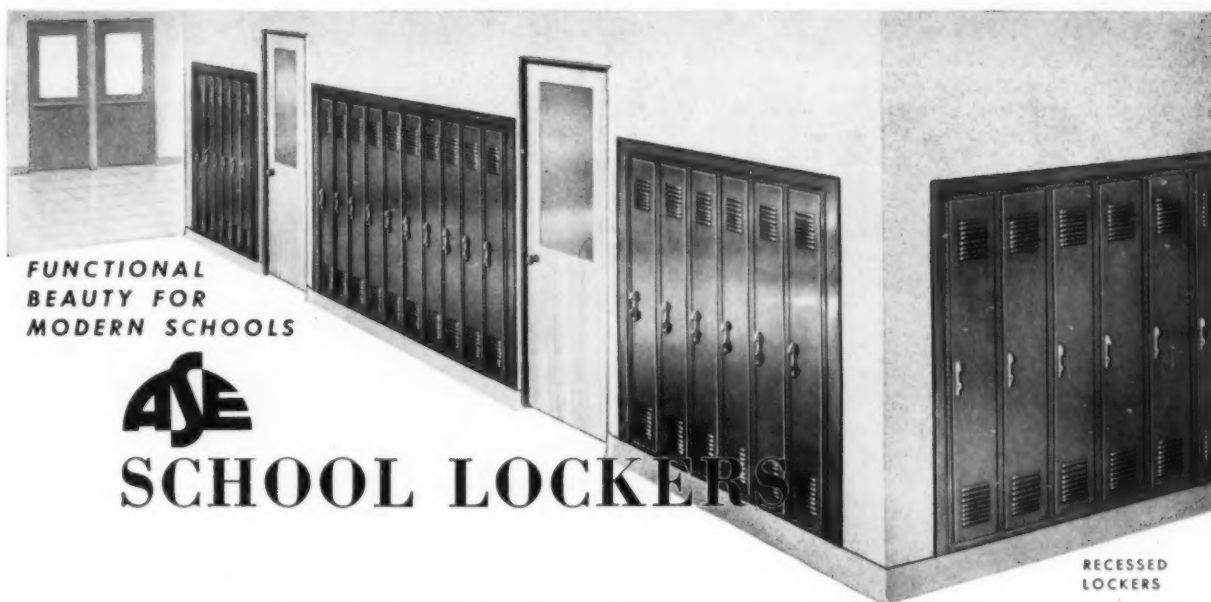
"Classified Advertisements are working successfully for others—they can do the same for you.

WRITE TO: **Classified Advertisements**

**COLLEGE and UNIVERSITY BUSINESS**

919 N. MICHIGAN • CHICAGO 11, ILLINOIS





FUNCTIONAL  
BEAUTY FOR  
MODERN SCHOOLS



## SCHOOL LOCKERS

**SERVICEABLE UNITS FOR HALLS,  
CLASSROOMS AND LOCKER ROOMS**



SINGLE TIER  
LOCKERS



DOUBLE TIER  
LOCKERS



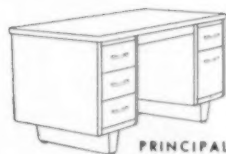
BOX  
LOCKERS

ASE Lockers present a fine, modern appearance and afford the most efficient, functional service. Have smartly designed handles that lift easily with a single finger and have pre-locking advantage. The locker doors close silently . . . Resilient rubber bumpers are located at points of contact. Styled louvres provide adequate ventilation. Hinges are concealed with no projecting surfaces to catch clothing.

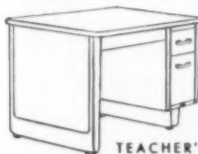
ASE Lockers are carefully cleaned and treated for the finest baked enamel finishes in Dawn Gray, Green and Sand Tan.

ASE engineers will gladly work with you or your architect. Write for illustrated Locker Bulletin.

**other ASE quality steel furniture for school use**



PRINCIPAL'S  
DESK



TEACHER'S DESK



UTILITY CHAIR



LIBRARY AND  
UTILITY TABLES



PRINCIPAL'S  
CHAIR



COMBINATION  
CABINET



**ALL-STEEL EQUIPMENT INC., Aurora, Illinois**

*Write for complete information. There's an ASE dealer near you.*

## What's New . . .

### Electric Sets Have Automatic Start-Stop

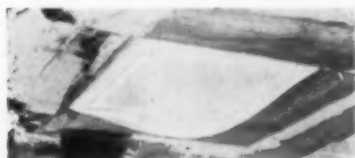
Relays necessary for unattended operation are included in the new automatic start-stop equipment now available on the large V-type Cat Diesel Electric Sets. The initiating contacts close when the regular power source fails, allowing a magnetic starter switch to activate the starting motors from battery current. The cycle continues until a load transfer switch applies the load to the electric set within a few seconds after power failure.

When regular power resumes, the load transfer switch starts the cycle to transfer the load back automatically to the regular electrical source. Thus continuous power is ensured under all conditions. Safety signals are included in the arrangement. Caterpillar Tractor Co., Peoria, Ill.

For more details circle #398 on mailing card.

### AP Acrylic Skylight Provides Maximum Light

A thermoplastic acrylic resin dome of



simple design, the AP Acrylic Skylight, sets into the roofing material. Light entering at the roof level gives the widest possible spread of daylight for maximum lighting efficiency. It is designed for use on any flat roof and is easily installed by the roofer.

The AP Skylight is available in sizes to fit standard roof joist spacings and roof openings. Installation is such that nothing is exposed to wind and weather except the strong, one-piece arching dome. Flanges are imbedded and permanently protected in the roofing material, thus tightly sealing the opening. The AP Skylight is manufactured by Architectural Plastics, Inc., 20 Fitch St., East Norwalk, Conn., and distributed by Austral Products Corp., 225 Broadway, New York 7.

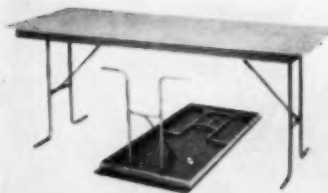
For more details circle #399 on mailing card.

### Folding Table Has Many Uses

Heavy duty 20 gauge steel channel frame with Wenger one-piece friction brace for safe operation are features of the new Wenger folding table. It is suitable for a variety of uses in classrooms, lunchrooms, residence halls, and wherever table space is needed. It folds easily and can be stored flat or on edge.

A hard Melamine plastic surface encases the top, sides and bottom of the 13

(Continued on page 104)



ply silver birch plywood top which is marproof, stainproof and scratchproof. The table is six feet long, 30 inches wide and 30 inches high and folds into a thickness of 2 3/4 inch for storage. Wenger Music Equipment Co., 50 Wenger Bldg., Owatonna, Minn.

For more details circle #400 on mailing card.

### Freezeproof Fountain Valve Meets All Health Codes

Designed to meet all health codes, the new Crane freezeproof valve has push-button operation. The fountain is simple to assemble, is adaptable to most types of installations, and is designed for use with the Crane Erie and Crane Ontario drinking fountains in climates where freezing occurs. The freezeproof valve allows year around use in any climate, and fountains require no winter maintenance. Crane Co., 836 S. Michigan Ave., Chicago 5.

For more details circle #401 on mailing card.



**ALL STEEL  
COMBINATION  
STORAGE UNITS**

**PROTECTS  
YOUR  
FILM!**



YOU CAN BE SURE that your stored films will be safe from dust, heat or dryness with NEUMADE COMBINATION STORAGE UNITS!



Model MM-119—A practical storage cabinet for the varied film library. Holds 400, 800, 1200, 1600 ft. reels; 100 filmstrip cans plus utility drawer in base. Overall size: 30" wide, 70" high, 16" deep. Over 50 models to choose from. Write for free catalog.



**PRODUCTS CORPORATION**  
330 West 42nd Street  
New York 18, N. Y.



**Disappearing Door  
SCHOOL WARDROBES**

**SIMPLE-PRACTICAL-RIGID-ADJUSTABLE-ATTRACTIVE**



With school space at a premium, Fairhurst School Wardrobes offer unique space saving benefits: Exclusive interior design accommodates apparel of at least 45 pupils in 2 ft. deep by 12 ft. space. Interior is free from obstruction with doors open or closed. Opened, doors are entirely out of way. No floor track. Continuous slate blackboards and chalk rail can be provided as well as cork bulletin board. Special closets, bookcases or compartments may be incorporated with wardrobes.

● Write for full details.



The disappearing door wardrobe was originated by John T. Fairhurst.

**John T. Fairhurst Co., Inc.**  
45 West 45th Street      New York 36, N. Y.

**"I especially recommend  
Seal-O-San Gym Floor Finish"  
for floors that get heavy use**

*Ernest Joslyn*

Ernest Joslyn  
Head, Department of Maintenance



*This attractive gym  
Floor is kept in tip-top  
shape with Seal-O-San  
Gym Floor Finish.*

**10 YEARS OF USE proves  
these outstanding advantages . . .**

For 10 years, Middleburgh Central School has used Huntington maintenance products exclusively because Mr. Ernest Joslyn, head of maintenance, relies on their dependability. He states, "I have found that, for ease of application, coverage, wearability and a fine finished appearance, Huntington seals and waxes are far superior to any other brands, used under the same conditions, that I have tested."

The gym floor at Middleburgh is finished with Seal-O-San to get maximum utility from the surface. Mr. Joslyn reports, "I especially recommend Huntington Seal-O-San gymnasium finish, which I believe to be the best on the market today."

For good protection and easy maintenance, rely on Huntington products. Let one of our trained representatives advise you on floor care. There's no obligation.



**CORRIDORS AT MIDDLEBURGH ARE PROTECTED  
AND BEAUTIFIED WITH HUNTINGTON WAXES.**



**MIDDLEBURGH CENTRAL SCHOOL  
MIDDLEBURGH, NEW YORK**

**HUNTINGTON**  **LABORATORIES**

Philadelphia 35, Pa.

Huntington, Indiana

Toronto 2, Ontario



## What's New...

### Product Literature

- A new booklet entitled **"Kodak Books and Guides"** has been brought out by Eastman Kodak Company, Rochester 4, N.Y. The 20-page illustrated booklet lists authoritative sources of up-to-date information on all phases of amateur and professional photography. Information on both general and specific photographic subjects, including the industrial, scientific and graphic arts fields, is included.  
For more details circle #402 on mailing card.
- A portfolio of ten catalog sections of **lighting equipment** which have been introduced by The F. W. Wakefield Brass Company, Vermilion, Ohio, is now available. Brevity of copy covering the modern, efficient fixtures is supplemented with effective drawings. The catalogs cover the Wakefield Ceiling and the full line of modular lighting equipment developed by the company.  
For more details circle #403 on mailing card.
- What seems to be a relatively unimportant detail but results in study-time loss is the problem of inadequate supply and incorrect placement of the classroom pencil sharpener, according to A. D. Farrell of Apsco Products, Inc., P.O. Box 840, Beverly Hills, Calif. His report, **"The Correct Pencil Sharpener for Your School,"** discusses pencil sharpener construction, maintenance and specific design and the disturbance factor and lost study time involved when pencil sharpeners are not properly placed in the classroom or an inadequate supply is available.  
For more details circle #404 on mailing card.
- All Yale key blanks and locksmiths' supplies and tools are covered in the new **Locksmith Supply Catalog** section issued by Yale & Towne Manufacturing Co., Stamford, Conn. The 32 page book contains comprehensive indices to key blanks, a section on repair parts and a section on repair tools and key duplicating machines. It should prove of value to maintenance departments and engineers.  
For more details circle #405 on mailing card.
- The new "packaged" **Lamson Airtube System** is described in a brochure released by Lamson Corp., 3100 James St., Syracuse 1, N.Y. The "packaged" system can be installed by the engineering department and is simple to operate. Points up to 130 feet distant may be connected.  
For more details circle #406 on mailing card.
- Some 2500 items used by hospitals, colleges and other institutions are listed in the new **1955 catalog** available from Clark Linen & Equipment Co., 303 W. Monroe St., Chicago 6. Items listed range in size from thread and key tags to complete room settings. Thirty-two of the catalog's 64 pages are in color and actual swatches of blankets are included.  
For more details circle #407 on mailing card.
- Nearly 200 athletic items in its line are included in a 32 page booklet brought out by W. J. Voit Rubber Corp., 2945 E. 12th St., Los Angeles 23, Calif. Many new items which appear in the line for the first time are to be found in the compact, colorful booklet.  
For more details circle #408 on mailing card.
- **Catalog No. 675**, released by The National Radiator Co., Johnstown, Pa., describes National commercial steel boilers with Wing induced draft fans. The eight page catalog is illustrated and gives specific examples where Wing induced draft fans are particularly advantageous.  
For more details circle #409 on mailing card.
- The full story on **Vampco All-Aluminum Windows** is told in a 40 page catalog recently released by Valley Metal Products Company, Plainwell, Mich. Specifications, detail drawings, glazing data and other factual information is given together with illustrations showing construction processes as well as colleges and other buildings in which Vampco All-Aluminum Windows are installed.  
For more details circle #410 on mailing card.
- The **Lawler Type "S" Thermostatic Temperature Regulator** is discussed in a 12 page catalog, **Bulletin S-6**, issued by Lawler Automatic Controls, Inc., 405 N. MacQuesten Pkwy., Mt. Vernon, N. Y. The comprehensive engineering catalog explains where and when to use the various type thermostatic temperature regulators and lists typical specifications.  
For more details circle #411 on mailing card.
- A new **Bulletin No. LP 354** has recently been released by Katolight Corp., Mankato, Minn. It describes the new standard line of power plants produced by the company, giving information on each unit including ratings, general features and accessories.  
For more details circle #412 on mailing card.
- Two new pieces of literature on hot water heating have been announced by the C. A. Dunham Company, 400 West Madison St., Chicago 6. **Catalog No. 1551** contains information on the complete Dunham line of hot water equipment. Photographs and drawings supplement descriptive data. **"There Are Two Sides to Every Story"** is a consumer brochure which tells of the advantages of hot water baseboard heating.  
For more details circle #413 on mailing card.
- **Catalog No. 151** is a guide to the selection of propeller fan type ventilating equipment available from Ilg Electric Ventilating Co., 2850 N. Pulaski Rd., Chicago 4. Specifications and other installation data are given on the line of propeller fans. The attractive 36 page catalog contains detailed illustrations of construction features and case study photographs picture a wide variety of installations.  
For more details circle #414 on mailing card.
- **"Skytrol Glass Blocks for Toplighting your Buildings"** is the title of a new eight page catalog announced by Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa. Prepared as a reference manual for administrators, school planning committees, architects and engineers, the illustrated catalog contains information on physical performance, technical data on light transmission and insulation values, installation detail drawings and complete specifications.  
For more details circle #415 on mailing card.
- **"Guide to Better Kitchen Cleaning"** is the title of a new handbook on cleaning put out by Oakite Products, Inc., 118A Rector St., New York 6. Based on years of actual in-kitchen experience, this handy, 24-page booklet covers everything from burnishing silverware to deodorizing garbage cans. Recommendations are given on how to do it, what to use, and why.  
For more details circle #416 on mailing card.
- **"See . . . Hear . . . Mr. Businessman"** is the title of a new business education film catalog released by the Audio-Visual Extension Service, The City College Bernard M. Baruch School of Business and Public Administration, 17 Lexington Ave., New York 10. Approximately five hundred 16 mm. motion pictures and 35 mm. filmstrips in over 50 different classifications are to be found in this 46 page catalog.  
For more details circle #417 on mailing card.
- A new catalog of **Prolon Ware plastic dinnerware** is now being offered by Parker D. Perry, Inc., Florence, Mass. Prolon Ware, manufactured by Prolon Plastics, is described in this new catalog as "the ideal dinnerware for schools and hospitals," and information is given on the synthetic, Melmac, of which this dinnerware is made. Drawings illustrate the size of each piece in the set on a scale of 1 inch to 6.  
For more details circle #418 on mailing card.
- The full line of **Arketex Ceramic Glazed Structural Tile** is discussed and illustrated in a new catalog recently released by The Arketex Ceramic Corp., Brazil, Ind. Typical installations are shown and construction details are given in this 28 page catalog.  
For more details circle #419 on mailing card.
- The Architectural Woodwork Institute of America, 332 S. Michigan Ave., Chicago 4, has prepared an **Architectural Woodwork Brochure Portfolio** in which it presents its program of technical service relating to the use of woodwork in architecture. The portfolio contains a folder describing the program and the four brochures released by the Institute covering "General Introduction," "Cabinet Work," "Wood Frames and Windows" and "Wall Paneling."  
For more details circle #420 on mailing card.

# PROD

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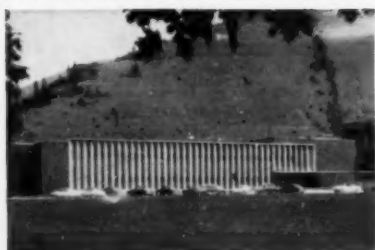
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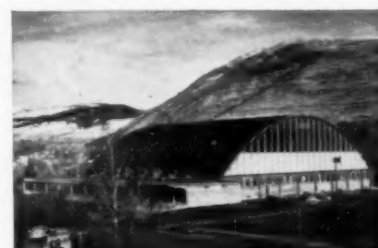
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